

**DWI
Detection and
Standardized
Field Sobriety
Testing**



**People Saving People
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**1987
Student
Manual**

(HS 178 5/87)

**DWI DETECTION
AND
STANDARDIZED FIELD SOBRIETY TESTING**

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SESSION I
INTRODUCTION AND OVERVIEW

1900
1901
1902

1903
1904
1905

SESSION I

INTRODUCTION AND OVERVIEW

Upon successfully completing this session, the participants will be able to:

- o State the goals and objectives of the course.
- o Describe the course schedule and activities.
- o Demonstrate their pre-training knowledge of course topics.

CONTENT SEGMENTS

- A. Welcoming Remarks and Objectives
- B. Administrative Details
- C. Pre-Test

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Written Examination

MINUTES OF THE BOARD OF DIRECTORS

The Board of Directors met on the 10th day of January, 1964, at the regular meeting held at the office of the Secretary, at 10:00 A.M. The meeting was called to order by the President, Mr. J. W. Smith, and the minutes of the previous meeting were read and approved.

The following report was presented by the Treasurer, Mr. J. W. Smith:

The balance on hand at the beginning of the year was \$10,000.00. During the year, the following amounts were received from the sale of shares: \$5,000.00. Total receipts for the year were \$15,000.00. The total disbursements for the year were \$5,000.00. The balance on hand at the end of the year was \$10,000.00.

The Board of Directors has approved the report of the Treasurer and has authorized the Treasurer to make the necessary entries in the books of the corporation.

The Board of Directors has also approved the report of the Secretary, Mr. J. W. Smith, and has authorized the Secretary to make the necessary entries in the books of the corporation.

The Board of Directors has also approved the report of the Chairman of the Executive Committee, Mr. J. W. Smith, and has authorized the Chairman to make the necessary entries in the books of the corporation.

There being no other business to come before the Board of Directors, the meeting adjourned at 11:00 A.M.

Attest: J. W. Smith, Secretary

Witness my hand and seal this 10th day of January, 1964.

**DWI DETECTION AND STANDARDIZED FIELD SOBRIETY TESTING
TRAINING GOALS AND OBJECTIVES**

1. Ultimate Goal

To increase the effectiveness of DWI violations, and thereby reduce the number of accidents, deaths, injuries, and property loss.

2. Enforcement-Related Goals

- a. Understand enforcement's role in general DWI deterrence.
- b. Understand detection phases, cues and techniques.
- c. Understand requirements for organizing and presenting testimonial and documentary evidence in DWI cases.

3. Job Performance Objectives

As a result of this training, students will become significantly better able to:

- a. Recognize and interpret evidence of DWI violations.
- b. Administer and interpret standardized field sobriety tests.
- c. Describe DWI evidence clearly and convincingly in written reports and verbal testimony.

4. Enabling Objectives

In pursuit of the job performance objectives, students will come to:

- a. Understand the tasks and decisions of DWI detection.
- b. Recognize the magnitude and scope of DWI-related accidents, deaths, injuries, property loss and other social aspects of the DWI problem.
- c. Understand the deterrence effects of DWI enforcement.
- d. Understand the DWI enforcement legal environment.
- e. Know and recognize typical vehicle maneuvers and human indicators symptomatic of DWI that are associated with initial observation of vehicles in operation.
- f. Know and recognize typical reinforcing maneuvers and indicators that come to light during the stopping sequence.

- g. Know and recognize typical sensory and other cues of alcohol and/or drug influence that may be discerned during face-to-face contact with DWI suspects.
- h. Know and recognize typical behavioral cues of alcoholic and/or drug influence that may be discerned during the suspect's exit from the vehicle.
- i. Understand the role and relevance of psychophysical testing in pre-arrest screening of DWI suspects.
- j. Understand the role and relevance of preliminary breath testing in pre-arrest screening of DWI suspects.
- k. Know and carry out appropriate administrative procedures for validated divided attention psychophysical tests.
- l. Know and carry out appropriate administrative procedures for the horizontal gaze nystagmus psychophysical test.
- m. Know and recognize typical cues of alcohol and/or drug influence that may be discerned during administration of psychophysical field sobriety tests.
- n. Understand the factors that may affect the accuracy of alcohol breath testing instruments.
- o. Understand the elements of DWI prosecution and their relevance to DWI arrest reporting.
- p. Choose appropriate descriptive terms to convey relevant observations of DWI evidence.
- q. Write clear, descriptive narrative DWI arrest reports.

GLOSSARY

ALVEOLAR BREATH - ~~Breath from the deepest part of the lungs.~~

BLOOD ALCOHOL CONCENTRATION (BAC) - ~~The percentage of alcohol in a person's blood.~~

DIVIDED ATTENTION TEST - ~~A test which requires the subject to concentrate on both mental and physical tasks at the same time.~~

DWI - Driving While Intoxicated. (Also Driving While Impaired.) Driving a vehicle while under the influence of alcohol or other drugs.

DWI DETECTION PROCESS - ~~The entire process of identifying and gathering substantive information to determine if or not a suspect should be arrested for DWI violation. The DWI detection process has three phases:~~

- Phase One - ~~Vehicle Inspection~~
- Phase Two - ~~Personnel Contact~~
- Phase Three - ~~Personnel Interviewing~~

EVIDENCE - ~~Anything by which some alleged fact that has been submitted in an investigation may either be established or disproven.~~ Evidence of a DWI violation may be of various types:

- a. Physical (or real) evidence: something tangible, visible, or audible.
- b. Well established facts (judicial notice).
- c. Demonstrative evidence: demonstrations performed in the courtroom.
- d. Written matter or documentation.
- e. Testimony.

FIELD SOBRIETY TEST - ~~Any one of several roadside tests that can be used to determine if a driver is impaired.~~

HORIZONTAL GAZE NYSTAGMUS (HGN) - ~~A field sobriety test based on the jerking of the eyes when looking to the side.~~

ILLEGAL PER SE - Unlawful in and of itself. Used to describe a law which makes it illegal to drive while having a statutorily prohibited Blood Alcohol Concentration (BAC).

NYSTAGMUS - ~~An involuntary jerking of the eyeballs.~~

ONE LEG STAND (OLS) - A divided attention field sobriety test.

PERSONAL CONTACT - The second phase in the DWI detection process. In this phase the officer observes and interviews the driver face to face; determines whether to ask the driver to step from the vehicle; and observes the driver's exit and walk from the vehicle.

PREARREST SCREENING - The third phase in the DWI detection process. In this phase the officer administers field sobriety, determines whether there is probable cause to arrest the driver for DWI, and determines whether to administer a preliminary breath test.

PRELIMINARY BREATH TEST (PBT) - A ~~portable~~ breath test administered during investigation of a possible DWI. It is used to determine if there is probable cause to arrest the driver for DWI.

PSYCHOPHYSICAL - "WAT." Used to describe a test that requires the driver to perform both mental and physical tasks.

STANDARDIZED FIELD SOBRIETY TEST BATTERY - A battery of three tests, Horizontal Gaze Nystagmus, Walk and Turn, and One Leg Stand, administered and evaluated in a standardized manner. It is based on research of impairment done by NHTSA.

TIDAL BREATH - Breath from the upper part of the lungs and mouth.

VEHICLE IN MOTION - The first phase in the DWI detection process. In this phase the officer observes the vehicle in operation, determines whether to stop the vehicle, and observes the stopping sequence.

WALK AND TURN (WAT) - A divided attention field sobriety test.

SESSION II

DETECTION AND GENERAL DETERRENCE

SESSION II

DETECTION AND GENERAL DETERRENCE

Upon successfully completing this session, the participants will be able to:

- o Describe the frequency of DWI violations and crashes.
- o Define General Deterrence.
- o Describe the Relationship between Detection and General Deterrence.

CONTENT SEGMENTS

- A. The DWI Problem
- B. The Concept of General Deterrence
- C. Relating Detection to Deterrence Potential
- D. Evidence of Effective Detection and Effective Deterrence

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Reading Assignments

The first part of the report discusses the background of the project and the objectives of the study. It also outlines the methodology used for data collection and analysis.

The second part of the report presents the results of the study, including a detailed analysis of the data and the conclusions drawn from the findings.

The final part of the report discusses the implications of the study and provides recommendations for future research and practice.

The study was conducted over a period of six months, during which time a total of 100 participants were recruited and interviewed.

The data collected from the interviews were analyzed using a content analysis approach, which allowed for the identification of key themes and patterns in the responses.

The findings of the study indicate that there are significant differences in the way that participants from different cultural backgrounds perceive and interpret the data.

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The study was funded by the National Science Foundation, Grant Number 0000000.

The authors would like to thank the following individuals for their assistance and support during the course of the study:

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DWI DETERRENCE: AN OVERVIEW

Each year, tens of thousands of people die in traffic accidents. Throughout the nation, alcohol is the major contributor to traffic fatalities:

- o ~~more than half the people who die in such accidents have been drinking.~~
- o ~~and that drinking drivers are legally under the influence.~~

~~Alcohol-related deaths are about nine times as likely to occur in fatal accidents as in non-fatal accidents.~~ Drinking drivers are more likely than other drivers to take excessive risks such as speeding or turning abruptly. ~~Drinking drivers also are more likely than other drivers to have been drinking at the time.~~ They may not be able to react quickly enough to slow down before crashing. While on the average two percent of drivers on the road at any given time are DWI, DWI violations and accidents are not simply the work of a relatively few "problem drinkers" or "problem drug users." Many people commit DWI, at least occasionally.

- o In a 1981 opinion survey conducted by Psychology Today, 41 percent of respondents reported they occasionally drove while drunk.
- o In a random survey of drivers stopped at all hours during one week, 12 percent had been drinking; two percent had a Blood Alcohol Concentrative (BAC) of 0.10 percent or more.
- o In ~~random surveys of drivers stopped during late evening, early morning, and midday hours, approximately 10 percent had a BAC of 0.10 percent or more.~~ (See Exhibit 2-1.)
- o ~~Surveys of drivers leaving bars between 1 p.m. and 2 a.m. on Friday and Saturday nights consistently show a BAC of 0.10 percent or more.~~

~~It is conservatively estimated that the typical DWI violator commits such offenses about once a month.~~ In other words, the ~~average DWI violator drives while impaired the same number of times a month.~~ (See Exhibit 2-2.)

GENERAL DETERRENCE

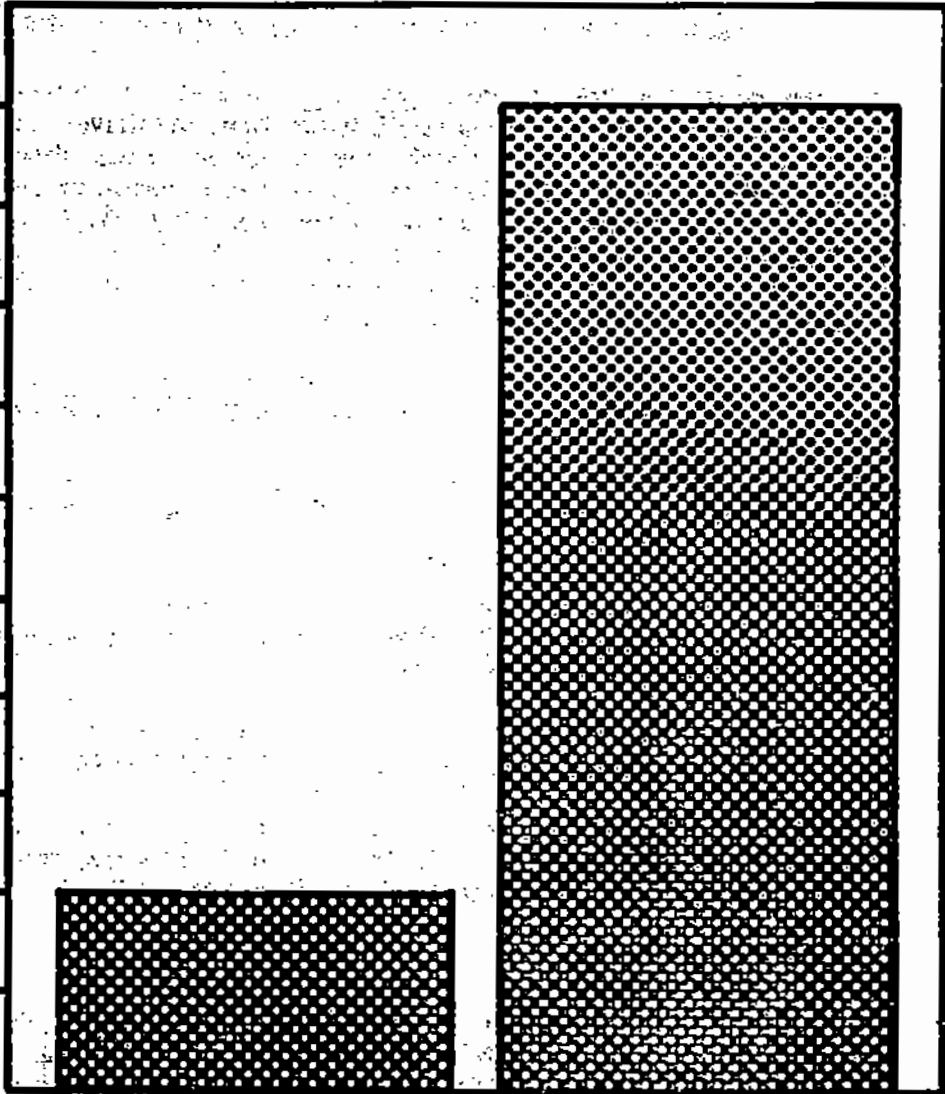
One approach to reducing the number of drinking drivers is general deterrence of DWI. ~~General deterrence is the public's fear of being arrested.~~ If enough violators come to believe that there is a good chance that they will get caught, at least some of them will stop committing DWI at least some of the time. ~~However, unless there is a real risk of arrest, they will not stop driving while impaired.~~

Law enforcement officers must arrest enough violators enough of the time to convince the general public that they will get caught, sooner or later, if they continue to drive while impaired.

**EXHIBIT
2-1**

% of drivers DWI

10
9
8
7
6
5
4
3
2
1



at any given time

**weekend nights and
early mornings**

EXHIBIT

2-2

JAN	X	X		XX				X	X						X		X
FEB		X		X	X			XX		X						X	X
MAR			X		X				XXX						XX		X
APR	X		XX				XX					X					
MAY	X		X	X	X			X		X				X			
JUN		X					XX		X							XX	X
JUL	X		X		X			X		X			XX				X
AUG	XX			X			X			XX		X			X	X	
SEP		X			X						XX						X
OCT	XX			X				XX		X				X			
NOV					XXX				X		X						
DEC	X		X					X							XX		

The average DWI violator commits the offense 80 times per year.

How many DWI violators must be arrested in order to convince the public that there is a real risk of arrest for DWI? Several programs have demonstrated that significant deterrence can be achieved by arresting one DWI violator for every 400 DWI violations committed. Currently, however, ~~for every DWI violator arrested, there are between 500 and 1,000 DWI violations committed.~~ (See Exhibit 2-3.) When the chances of being arrested are one in two thousand, the average DWI violator really has little to fear.

Why is the DWI arrest to violations ration (1:2000) so low? There are three noteworthy reasons.

- o DWI violators vastly outnumber police officers. It is not possible to arrest every drinking driver each time he or she commits DWI.
- o Some officers are not highly skilled at DWI detection. They fail to recognize and arrest many DWI violators.
- o Some officers are not motivated to detect and arrest DWI violators.

SIGNIFICANT FINDINGS

In a study conducted in Fort Lauderdale, Florida, only 22 percent of traffic violators who were stopped with BACs between 0.10 and 0.20 percent were arrested for DWI. The remainder were cited for other violations, even though they were legally "under the influence." In this study breath tests were administered to the violators by researchers after the police officers had completed their investigations. The officers failed to detect 78 percent of the DWI violators they investigated.

The implication of this study, and of other similar studies, is that for every DWI violator actually arrested for DWI, three others are contacted by police officers, but are not arrested for DWI. (See Exhibit 2-4.) It is clear that significant improvement in the arrest rate could be achieved if officers were more skilled at DWI detection.

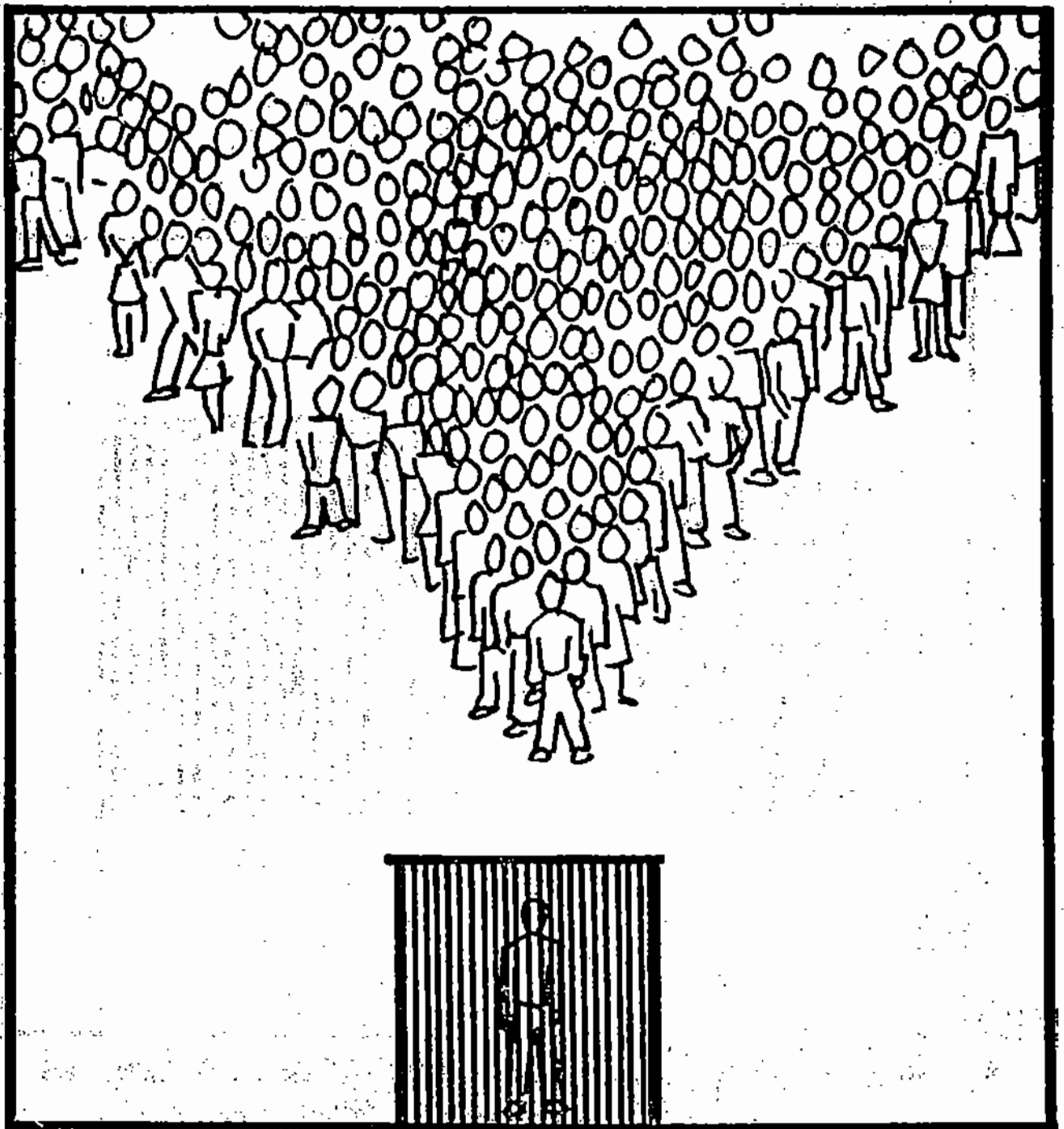
Several enforcement programs have succeeded in achieving significant DWI deterrence. Consider, for example, the three year intensive weekend DWI enforcement program in Stockton, California. Under that program:

- o arrests increased 500 percent;
- o weekend nighttime accidents decreased 34 percent;
- o the proportion of nighttime weekend drivers legally under the influence dropped from nine percent to six percent.

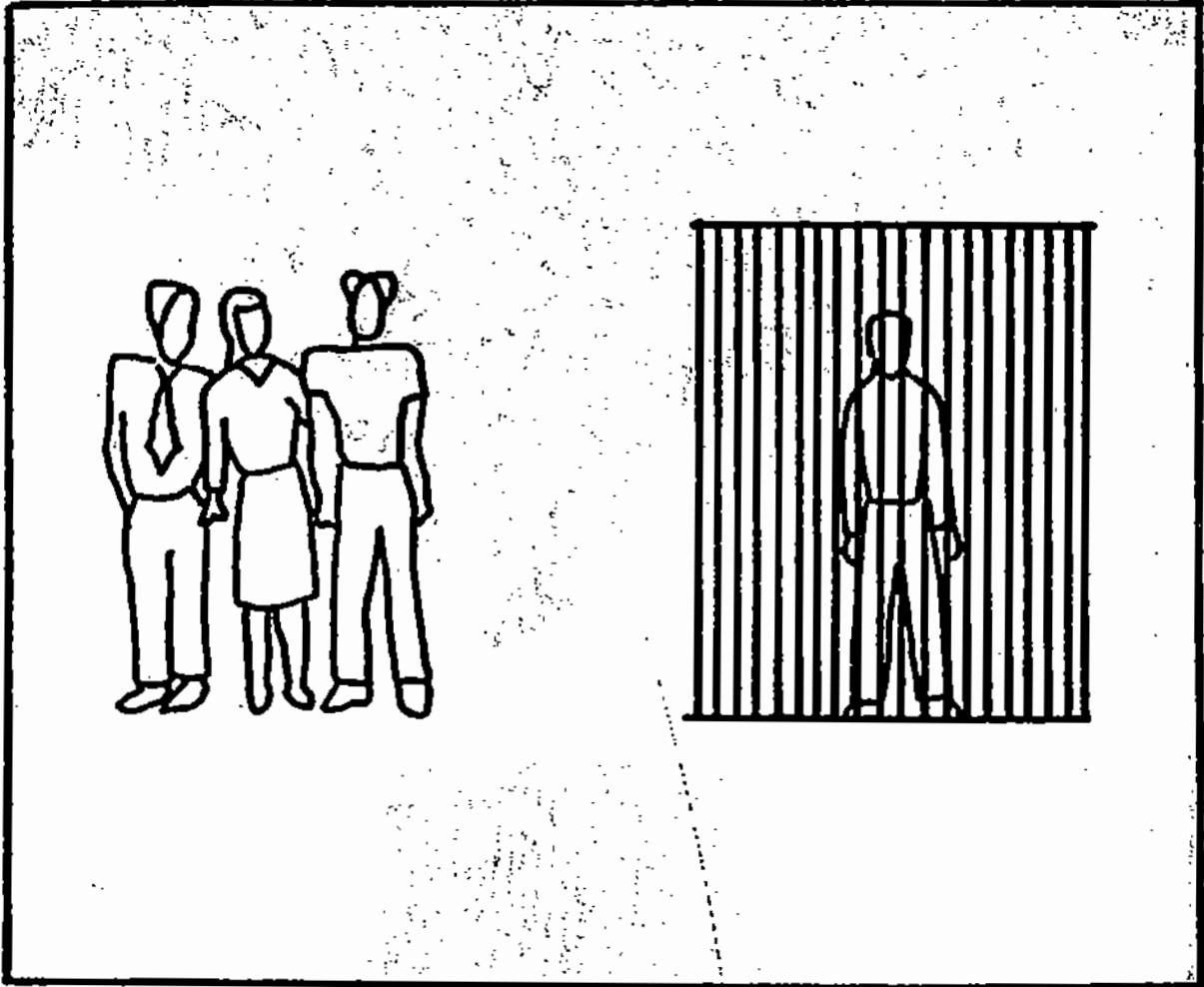
Improved DWI detection can be achieved in virtually every jurisdiction in the country. The keys to success are police officers who are:

- o skilled at DWI detection;
- o willing to arrest every DWI violator who is detected;
- o supported by their agencies in all aspects of this program, from policy through practical application.

**EXHIBIT
2-3**



Chances of a DWI violator being arrested are as low as one in 2000.



For every DWI violator arrested & sentenced to jail, there are 100 more who are not arrested & sentenced to jail.

THE PROBLEM OF DWI

HOW WIDESPREAD A PROBLEM IS "PROBLEM DRINKING DRIVING?"

While not all of those who drive after drinking have blood alcohol concentrations (BAC) of 0.10 percent or more — the presumptive or illegal per se limit for DWI in most states — many drivers do have BACs in excess of .10 percent.

A frequently quoted, and often misinterpreted, statistic places the average incidence of DWI at one driver in fifty; that is, averaged across all hours of the day and all days of the week, two percent of the drivers on the road are DWI.¹ That one-in-fifty figure usually is offered as evidence that a relatively small segment of America's drivers — the so-called "problem" group — account for the majority of traffic deaths. There's nothing wrong with that figure as a statistical average. But police officers know that at certain times and places many more than two percent of drivers are under the influence of alcohol. National Highway Traffic Safety Administration research suggests that during the late night, weekend hours, as many as ten percent of drivers on the roads may be DWI.² On certain holiday weekends, and at other especially critical times, the figure may go even higher.

HOW MANY DO IT: HOW OFTEN DO THEY DO IT?

The issue of how many DWIs are on the road at any given time is an important factor in measuring the magnitude of the problem. However, from an overall traffic safety perspective, the more important issue may be the number of drivers who ever commit DWI. Just how widespread is this violation? In enforcement terms, how many people do we need to deter?

Clearly, it is more than one in fifty. Although it may be true that, on the average, two percent of drivers are DWI at any given time, it certainly is not the same two percent every time. It is even more than one in ten. Surely not everyone who ever commits DWI is out on the road, under the influence, every Friday and Saturday night. Some of them, at least, must skip an occasional weekend. Thus, the ten percent who show up, weekend after weekend, in the Friday and Saturday statistics must come from a larger pool of violators, each of whom "contributes" to the statistics on some nights, but not necessarily on all nights. The ten percent are the tip of a larger — possibly much larger — iceberg.

An analysis of BAC roadside survey data suggests that the average DWI violator commits that violation approximately 80 times each year.³ Undoubtedly, there are some who drive under the influence virtually every day; others commit the violation less often. It is likely that at least one-quarter of all American motorists drive while under the influence at least once in their lives. That figure falls approximately midway between the 55 percent of drivers who at least occasionally drive after drinking and the ten percent of weekend, nighttime drivers who have BACs above the so-called legal limit. Our estimated one in four drivers includes everyone who drives drunk every day, as well as everyone who commits the violation just once and never offends again; and it includes everyone in between. In short, it includes everyone who ever runs the risk of being involved in an accident while under the influence of alcohol.

SOCIETY'S PROBLEM AND SOCIETY'S SOLUTION

It really doesn't matter whether this one in four estimate is reasonably accurate (in fact, it is probably low). The inescapable fact is that far more than two percent of American drivers actively contribute to the DWI problem. Law enforcement has always known intuitively what research now discloses quantitatively: We can't control DWI in this country simply by focusing on a few "problem" drivers who are radically distinct from the rest of us, and at whom we can aim a "silver bullet" or magical solution. Rather, DWI is a crime committed by a substantial segment of Americans. In other words, it has been and remains a popular crime: one which many people from all walks and stations of life commit. The DWI violator is not an isolated outcast, relegated to a far corner of society that could be easily and surgically removed. He (and she) is found everywhere in society, and is inextricably intertwined with our society itself. DWI is a crime that can be fought successfully only in a total societal context, with comprehensive programs based in and applying to the community itself.

1. Borkenstein, R.F., et al, Role of Drinking Driver in Traffic Accidents. Bloomington IN: Department of Police Administration, Indiana University, March 1964.
2. Alcohol Highway Safety Workshop, Participant's Workbook Problem Status. NHTSA, 1980.
3. DWI Law Enforcement Training: Instructor's Manual. NHTSA. August 1974. P.139.

THE SOLUTIONS.

THE ULTIMATE GOAL - CHANGING BEHAVIOR

What must comprehensive community based DWI programs seek to accomplish?

Ultimately, nothing less than fundamental behavioral change, on a widespread basis. The goal is to encourage vastly more Americans to:

- o avoid committing DWI, either by avoiding or controlling drinking prior to driving or by selecting alternative transportation subsequent to drinking;
- o intervene actively to prevent others from committing DWI (for example, putting into practice the theme "friends don't let friends drive drunk");
- o avoid riding with drivers who are under the influence of alcohol.

The final test of the value of DWI countermeasures on the national, state and local levels is whether they succeed in getting significantly more people to behave in these ways. To be sure, the programs also pursue other more immediate objectives that support or reinforce the ultimate goal. However, the ultimate goal is to change driving while intoxicated behavior by the public.

PURSUING THE GOAL - TWO APPROACHES

How can we bring about these changes in behavior? How can we induce more people to avoid DWI violations themselves, prevent others from drinking and driving, and avoid becoming passive "statistics" by refusing to ride with drinking drivers? Basically, there are two general approaches that can — and must — be taken to achieve the goal. One — prevention — gives promise of the ultimate, lasting solution to the DWI problem; but it will require a substantial amount of time to mature fully. The other — deterrence — only offers a partial or limited solution; but it is available right now.

PREVENTION: THE ULTIMATE SOLUTION

DWI countermeasures that strive for the ultimate achievement of drinking-driving behavioral changes have come to be grouped under the label "Prevention." There are many kinds of DWI preventive activities. Some are carried out by and in our schools, some through the mass media, some through concerned civic groups, and so forth. The various preventive efforts focus on different specific behaviors and address different target groups. However, they share one important feature: they seek to change drinking-driving behavior by promoting more positive attitudes, by fostering a set of values that better reflects the true nature of DWI and of each person's individual responsibilities toward his or her own and others' drinking and driving.

Preventive countermeasures seek society's acceptance of the fact that DWI is wrong. Some people believe that drinking-driving is strictly an individual's personal business, that it is up to each person to decide whether or not to accept the risk of driving after drinking. Preventive activities try to dispel that outmoded and fundamentally anti-social belief, and to promote instead the outlook that no one has the right to endanger others by drinking and driving, or to risk becoming a burden (economically and otherwise) to others as a result of injuries suffered while drinking and driving. From there, it is a short step to acceptance of the belief that everyone has an obligation not only to control his or her

own drinking and driving, but also to speak up when others are about to commit the violation. When society at large views DWI as inherently bad behavior, as behavior that cannot be tolerated or condoned in oneself or in others, then people in general will be predisposed not to commit the violation and actively to keep others from doing so; that is the long-term solution to the problem.

DWI prevention will never be 100 percent successful. In reality, there will always be people who drink and drive. However, lest we conclude that the goals of preventive countermeasures cannot be achieved, it is helpful to reflect on similar programs that have achieved substantial measures of success. A generation and more ago, littering was much more common and much more tolerated than it is today. In the past, many of us were conscious primarily of our "right" to keep our cars and pockets free of debris by tossing out garbage as we drove or strolled along. Today we place much greater value on the right to a litter-free environment. With these new sets of values have come new behaviors. For another example of fundamental behavioral change following acceptance of new values, one need only look at the proliferation of "Thank You for Not Smoking" signs. Displaying such a sign a generation ago would have been viewed as impolite, if not anti-social. Today it is common practice.

DWI prevention through basic shifts in attitudes and values can work. Given enough time, it will work, but the key word here is time. It seems to be a truism of society that a full generation or more must grow to maturity before new attitudes become firmly held and start to change behavior. We can look at today's infants and children and expect with confidence that, in the main, they will have healthier attitudes toward (and exercise better control over) drinking-driving than do their parents. However, that does not help much when it is the parents (and grandparents) who are doing the drinking-driving right now. We need an interim solution, and we need it now.

DWI DETERRENCE

DETERRENCE: THE SOLUTION AT HAND

DWI countermeasures that seek a short-cut to the ultimate goal of behavioral change generally are labeled "Deterrence." Deterrence can be described as negative reinforcement. Deterrence countermeasures focus primarily on changing individual drinking-driving behavior; some also seek to influence people to intervene into others' drinking and driving decisions.

The key feature of deterrence is that it strives to change DWI behavior without dealing directly with the prevailing attitudes about the rightness or wrongness of DWI. Deterrence uses a mechanism quite distinct from attitudinal change: fear of apprehension and application of sanctions.

THE FEAR OF BEING CAUGHT AND THE FEAR OF BEING PUNISHED.

Large scale DWI deterrence programs try to control the DWI behavior of the motoring public by appealing to the public's presumed fear of being caught. The underlying hypothesis is that most actual or potential DWI violators view the prospect of being arrested with extreme distaste. For some, the arrest, with its attendant handcuffing, booking, publicity and other stigmatizing and traumatizing features, is the thing most to be feared. For others, it is the prospective punishment (jail, stiff fine, etc.) that causes most of the concern. Still others fear most the long-term costs and inconvenience of a DWI arrest: the license suspension and increased premiums for automobile insurance. For many violators the fear probably is a combination of all of these. Regardless, if enough violators are sufficiently fearful of DWI arrest, some of them (at least) will avoid committing the violation at least some of the time. Fear by itself will not change their attitudes; if they do not see anything inherently wrong with drinking and driving in the first place, the prospect of arrest and punishment will not help them see the light. However, fear sometimes can be enough to keep them from putting their anti-social attitudes into practice.

This type of DWI deterrence, based on the fear of being caught, commonly is called general deterrence. It applies to the motoring public generally and presumably affects the behavior of those who have never been caught. There is an element of the fear of the unknown at work here.

Another type of DWI deterrence, called specific deterrence, applies to those who have been caught and arrested. The typical specific deterrent involves some type of punishment, perhaps a fine, involuntary community service, a jail term or action against the driver's license. The punishment is imposed in the hope that it will convince the specific violator that there is indeed something to fear as a result of being caught, and to emphasize that if there is a next time, the punishment will be even more severe. It is the fear of the known that comes into play in this case.

(There is another type of DWI control activity that does not fit neatly into this prevention/deterrence model. That is the treatment or rehabilitation of apprehended DWI violators. Typically, those programs employ psychotherapeutic methods to deal with the violator's alcohol abuse patterns. We do not address treatment/rehabilitation in this manual because our interest focuses on enforcement and deterrence. However, we note that treatment, just as enforcement, is an essential element of every comprehensive community-based DWI control system.)

THE FEAR OF BEING CAUGHT

The concept of DWI deterrence through fear of apprehension or punishment seems sound. But will it work in actual practice? The crux of the problem is this: If the motoring public is to fear arrest and punishment for DWI, they must perceive that there is an appreciable risk of being caught and convicted if they commit the crime. If actual and potential DWI violators come to believe that the chance of being arrested is nil, they will quickly lose whatever fear of arrest they may have felt.

Enforcement is the only possible mechanism for creating and sustaining a healthy fear of being caught for DWI. No specific deterrence program can amount to much unless police officers arrest large numbers of violators; no punishment or rehabilitation program can affect behavior on a large scale unless it is applied to many people. And of course, general deterrence absolutely depends on enforcement — the fear of being caught is a direct function of the number of people who are caught.

Obviously, the police alone cannot do the job. Legislators must supply sound laws that the police can enforce. Prosecutors must vigorously prosecute DWI violators, and the judiciary must adjudicate fairly and deliver the punishments prescribed by law. The media must publicize the enforcement effort and communicate the fact that the risk is not worth the probable outcome. Each of these elements plays a supportive role in DWI deterrence.

HOW MUCH RISK IS ENOUGH RISK?

The question now is, are violators afraid of being caught? More importantly, should they be afraid? Is there really an appreciable risk of being arrested if one commits DWI?

The answer to all of these questions unfortunately is: probably not. In most jurisdictions, the number of DWI arrests appears to fall short of what would be required to sustain a public perception that there is a significant risk of being caught.

Sometimes, it is possible to enhance the perceived risk, at least for a while, through intensive publicity. However, media "hype" without correspondingly intensified enforcement has never been enough to maintain the climate of fear for very long.

HOW MUCH SHOULD THE PUBLIC FEAR?

We can draw some reasonable estimates of DWI enforcement intensity, based on what we know and on certain assumptions we have already made. Suppose we deal with a random sample of 100 Americans of driving age. If they come from typical enforcement jurisdictions, chances are that exactly one of them will be arrested for DWI in any given year: our annual DWI arrests, in most places, equal about one percent of the number of drivers in the population. That is one arrest out of 100 drivers during one year; however, how many DWI violations do those drivers commit? Recall our previous estimates that some 25 percent of America's drivers at least occasionally drive while under the influence, and that the average violator commits DWI 80 times each year. Then, our sample of 100 drivers includes 25 DWI violators who collectively are responsible for 2,000 DWI violations yearly.

In typical enforcement jurisdictions, only one DWI violation in 2,000 results in arrest. This is a widely accepted figure that has been arrived at by many researchers applying various statistical methods.

How much deterrence will an arrest rate of 1 in 2,000 produce? Probably not much. Look at it this way: if the average violator faces only one chance in 2,000 of being arrested on any DWI occasion and if he or she commits that violation 80 times each year, then the average violator faces only a four percent chance of being arrested even once during the course of a full year. Thus, out of every 100 people who regularly commit DWI, only four will be arrested by the end of a year. The remaining 96 are very likely to believe that it will never happen to them.

CHANGING THE ODDS

If an arrest/violation ratio of 1 in 2,000 is not enough to make deterrence work, is it then reasonable to think that we can ever make deterrence work? After all, if we doubled DWI arrests to 1 in 1,000, we would still be missing 999 violators for every one we managed to catch. If we increased arrests ten-fold, to 1 in 200, 199 would escape for every one arrested. How much deterrence would that produce?

Surprisingly, it would probably produce quite a bit. We don't have to arrest every DWI offender every time in order to convince them that they have something to fear. We only have to arrest enough of them enough of the time to convince many of them that it can happen to them. As the arrest rate increases, the odds are that it will happen to them eventually. The law of averages (or cumulative probability) will catch up with them, and sooner than we might at first expect.

The table below displays the cumulative probability (as a percentage) of being arrested at least once during the course of one, two or three years as a function of the arrest rate on any given night. The table is based on the assumption that the average violator commits DWI 80 times each year.

Percent of violators arrested after...

Nightly Arrest Rate	One Year	Two Years	Three Years
1 in 2000	3.9%	7.7%	11.3%
1 in 1000	7.7%	14.8%	21.3%
1 in 500	14.8%	27.4%	38.2%
1 in 200	33.0%	55.2%	70.0%

Clearly, the chances of being caught accumulate very quickly as the arrest/violation ratio increases. If we could maintain a ratio of one arrest in every 500 violations (a level of enforcement currently maintained in some jurisdictions), then by the time one year has passed, slightly more than one of every seven people (14.8%) who have committed DWI during that year will have been arrested at least once — that is approximately the chance of losing at Russian Roulette. It probably is a high enough chance to get the attention — and fear — of many violators. If we could achieve an arrest ratio of 1 in 200 (a level attainable by officers skilled in DWI detection) we will arrest fully one-third of all DWI violators at least once every year, and we will arrest more than half of them by them by the time two years have gone by.

¹ Four percent is approximately the cumulative probability that an outcome with a likelihood of 1 in 2000 will occur at least once over the course of 80 events.

DWI DETECTION: THE KEY TO DETERRENCE

CAN IT BE DONE, AND WILL IT WORK?

Is there any evidence that a practical and realistic increase in DWI enforcement activity will induce a significant degree of general deterrence, and a corresponding change in DWI behavior? Yes there is: the Increased DWI Enforcement Project in Stockton, California.

In 1975, the City of Stockton, probably was a typical American community so far as DWI enforcement was concerned.¹ The city's DWI arrests in that year totaled 700, equivalent to considerably less than one percent of the metropolitan area's licensed driver population (approximately 130,000). The implication is that Stockton's police officers, like most of their counterparts across the country, were maintaining an arrest/violation ratio of 1-in-2000, or less. That is, for every DWI arrest that was made in Stockton, there were probably another 2000 undetected DWI violations. Stockton's drunk drivers really did not have to worry much about being caught. Stockton's motoring public was behaving just as one might expect — on typical Friday and Saturday nights, roadside surveys disclosed that nine percent of the cars on the road were operated by drivers with BACs of 0.10 percent or more.

Then things changed. Beginning in 1976 and continuing at planned intervals through the first half of 1979, Stockton conducted intensive DWI enforcement on weekend nights. The officers involved were extensively trained. The enforcement effort was heavily publicized. Additional equipment (breath testing devices, cassette recorders) was made available. The police efforts were closely coordinated with the District Attorney's office, the County Probation office, and other allied criminal justice and safety organizations. All of this paid off. By the time the project came to a close, DWI arrests had increased by 521 percent, and weekend nighttime collisions had decreased by 34 percent.

Most impressively, roadside surveys now disclosed that only six percent of the cars on the roads on weekend nights were operated by DWI violators. The number of people committing the offense had diminished by one-third.

DETECTION: THE KEY TO DETERRENCE

It is important to understand that the substantial deterrence that Stockton produced vastly exceeded the level of enforcement that its officers achieved on any given night. True, weekend DWI arrests had increased by 521 percent. But since they had started with an enforcement ratio of no better than 1-in-2000, the tremendous percentage increase probably brought the ratio to about 1-in-400. In other words, for every drinking driver arrested when the enforcement effort was at its peak, 399 others avoided arrest. Nevertheless, this was sufficient to convince at least one-third of Stockton's DWI violators to change their behaviors substantially.

The law of averages quickly starts to catch up with DWIs when the enforcement ratio improves to the neighborhood of 1-in-400. At that level of enforcement, unless violators change their behavior, many of them will be caught, or at least will see several of their friends being caught, before very much time goes by. Coupled with the heavy publicity given to the enforcement effort, those experiences were enough to make many violators perceive that there was a high risk indeed that they would be caught if they kept behaving in the same old way. As a result, many of them changed their behavior; that is what we mean by general deterrence.

It is important to understand that Stockton did not have to quintuple its enforcement resources in order to quintuple its DWI arrests. It did not even have to quintuple its stops of suspected DWIs. During the same time that DWI arrests went up by 521 percent, citations for other traffic violations increased by a comparatively modest 99 percent. The implication is that Stockton's officers were stopping and contacting only twice as many possible violators as they had before, but they were coming up with more than five times as many arrests.

What was happening? Basically, Stockton benefited from its officers' increased skills at DWI detection. Principally because of their special training, the officers were better able to recognize cues of impairment when they observed vehicles in motion, and they were more familiar with the human indicators of impairment exhibited by violators during personal contact. The officers also had more confidence in the field sobriety tests they used to investigate their suspects. Thus, the tremendous increase in DWI arrests was only partly due to increased stops of suspects. The more important factor was that far fewer of the violators being stopped now avoided detection and arrest.

The difficulty in detecting DWI among people personally contacted by police officers has been well documented. Analysis of roadside survey and arrest data from the early 1970s suggest that for every DWI violator arrested, three others actually are contacted — face-to-face — by police officers but are allowed to go without arrest.² Direct support of that inference was found in the Fort Lauderdale BAC study, where researchers demonstrated that police officers arrested for DWI only 22 percent of the drivers they contacted whose BACs were shown subsequently to be between 0.10 percent and 0.20 percent.³

The ability to detect DWI violators thus is both the key to general deterrence, and possibly the greatest impediment to it. If we accept the three-to-one ratio of failed detections to detections as being reasonably accurate, the implications are rather frightening. Consider the impact on subsequent behavior when a violator is stopped, but allowed to proceed. Very likely, that driver will become even more convinced of his or her ability to handle drinking and driving. If this happens several more times, that driver, and that driver's friends, will come to believe that they will never be arrested, that they can handle their alcohol or drugs so well that no police officer can tell they are "over the limit." Instead of creating general deterrence of DWI, this kind of experience breeds specific reinforcement. It helps to convince DWI violators that they have nothing more to fear than an occasional ticket for a minor traffic offense.

On the positive side, the current ratio of failures to detections suggests that much can be accomplished with existing resources if we use those resources as efficiently as possible. Consider this: typical law enforcement jurisdictions presently arrest about one DWI violator per 2,000 violations, and do so by detecting only one of four violators with whom they come into personal contact. What if detection skills could be improved? Then we would see an increase in arrest/violation ratio of 4-in-2000 (or 1-in-500) without any increase in contacts.

1 The statistics cited in this section are taken from Implementation Manual for DWI Enforcement, prepared by the Stockton Police Department under a contract with the National Highway Traffic Safety Administration. October 1979.

2 DWI Law Enforcement Training, op. cit.

3 Fort Lauderdale BAC Study.

TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. On the average, 22 percent of the drivers on the road at any given time are DWI.
2. On a typical weekend night, 27 percent of the drivers are DWI.
3. The average DWI violator commits that violation 2 times a year.
4. In typical enforcement jurisdictions one DWI violation in 10 results in arrest.
5. Research has shown that for every DWI violator arrested 10 others are contacted face to face by police, but released.
6. In the Fort Lauderdale study, police officers arrested 25 percent of the drivers they contacted whose BACs were .10 - .20 percent.

SESSION III
THE LEGAL ENVIRONMENT

SESSION III

THE LEGAL ENVIRONMENT

Upon successfully completing this session, the participants will be able to:

- o State and discuss the elements of DWI offenses.
- o Discuss the provisions of the implied consent law.
- o Discuss the relevance of chemical test evidence.
- o Discuss precedents established through case law.

CONTENT SEGMENTS

- A. Basic DWI Statute: Driving While Under The Influence
- B. Implied Consent Law and Presumptions
- C. Illegal Per Se Statute: Driving With A Proscribed Blood Alcohol Concentration
- D. Preliminary Breath Testing
- E. Case Law Review

LEARNING ACTIVITIES

- o Instructor-Led Presentation
- o Reading Assignments

INTRODUCTION

An understanding of drinking-driving laws that apply in your jurisdiction is critical to DWI enforcement.

All states (and many local jurisdictions) have their own drinking-driving laws. While the specific language of these laws may vary significantly, most include following provisions:

- o a Basic DWI Law;
- o an Implied Consent Law;
- o an Illegal Per Se Law;
- o a Preliminary Breath Testing Law.

In the following pages these four types of drinking-driving laws are discussed in detail. The illustrations provided are drawn from the Uniform Vehicle Code. You are responsible for learning whether and how each law applies in your jurisdiction. Worksheets are provided to guide you in learning about the specifics of your laws.

BASIC DWI LAW

A state's basic DWI statute may be subtitled Driving While Under the Influence, or something similar. Typically the statute describes the who, what, where and how of the offense in language such as this:

It is unlawful for any person to operate or be in actual physical control of any vehicle within this state while under the influence of alcohol and/or any drug.

ARREST

In order to arrest someone for a basic DWI violation, a law enforcement officer must have probable cause to believe that all elements of the offense are present. That is, the officer must have probable cause to believe that

- o the person in question
- o was operating or in actual physical control of
- o a vehicle (truck, van, automobile, motorcycle, even bicycle, according to specific provisions in various states)
- o while under the influence of alcohol, another drug, or both.

Note: In some states it is unlawful to operate a vehicle while under the influence anywhere in the State: on or off roadways, on private property, and so on. In other states, the law applies only on publicly accessible roadways.

CONVICTION

In order to convict a person of DWI, it is necessary to establish that all four elements were present. With regard to under the influence, courts have generally held that phrase to mean that the ability to operate a vehicle has been affected or impaired. To convict a person of a basic DWI violation, it is usually necessary to show that the person's capability of safely operating the vehicle has been impaired. If DWI is a criminal offense, the facts must be established "beyond a reasonable doubt." If DWI is an infraction, the standard of proof may be less. In either case, it is the officer's responsibility to collect and to thoroughly document all evidence.

IMPLIED CONSENT LAW

DESCRIPTION

The question of how much impairment in the ability to operate a vehicle will equate with driving while under the influence is not completely clear. Some courts have held that the slightest degree of impairment to the ability to drive means the driver is "under the influence." Other courts have held that there must be evidence of substantial impairment to the ability to drive before DWI conviction is warranted. Therefore, proving that a driver was "under the influence" has been (and continues to be) difficult.

To help resolve this difficulty, states have enacted Implied Consent Laws. The principal purpose of the Implied Consent Law is to encourage people arrested for DWI to submit to a chemical test to provide scientific evidence of alcohol influence. The Implied Consent Law usually includes language similar to the following:

Any person who operates a motor vehicle upon the public highways of this state shall be deemed to have given consent to a chemical test for the purpose of determining the alcohol and/or drug content of his or her blood when arrested for any acts alleged to have been committed while the person was operating or in actual physical control of a vehicle while under the influence of alcohol and/or any drug.

The Implied Consent Law usually provides the driver with the statutory option to refuse the test. However, this option of refusal is not an unlimited right; the law also provides that the individual's driver's license may be suspended or revoked if the refusal is found to be unreasonable. Including a provision for license suspension or revocation is a means of encouraging those arrested for DWI to submit to the test so that valuable chemical evidence may be obtained.

LEGAL PRESUMPTIONS

Legal presumptions define the significance of the scientific chemical test evidence. Generally the Implied Consent Law provides an interpretation or presumption for the chemical test evidence like the following:

If the chemical test shows that the person's blood alcohol concentration (BAC) is 0.10% or more it shall be presumed that the person is under the influence. If the test shows that the BAC is 0.05% or less, it shall be presumed that the person is not under the influence. If the test shows that the BAC is more than 0.05% but less than 0.10%, there is no presumption as to whether the person is or is not under the influence.

The weight of the chemical test evidence is presumptive of alcoholic influence, not conclusive.

If there is no evidence to the contrary, the court may accept the legal presumption and conclude that the driver was or was not under the influence, on the basis of the chemical test alone. However, other evidence, such as testimony about the driver's appearance, demeanor or speech, for example, may be sufficient to overcome the presumptive weight of the chemical test.

It is possible for a person whose BAC at the time of arrest is above 0.10 percent to be acquitted of DWL. It is also possible for a person whose BAC at the time is below 0.05 percent to be convicted of DWL. Consider the following examples:

Example 1

A driver is arrested for DWL. A chemical test administered to the driver shows a BAC of 0.13 percent. At the subsequent trial, the chemical test evidence is introduced. In addition, the arresting officer testifies about the driver's appearance, behavior and driving. The testimony is sketchy, confused and unclear. Another witness testifies that the driver drove, behaved and spoke normally. The court finds the driver not guilty of DWL.

Example 2

A driver is arrested for DWL. A chemical test administered to the driver shows a BAC of 0.03 percent. At the subsequent trial, the chemical test evidence is introduced. In addition, the arresting officer testifies about the driver's stuporous appearance, slurred speech, impaired driving and inability to perform divided attention field sobriety tests. The testimony is clear and descriptive. The court finds the driver guilty of DWL.

The difference in outcomes in the two examples cited is directly attributable to the evidence other than the chemical test evidence presented in court. Remember that the chemical test provides presumptive evidence of alcohol influence; it does not provide conclusive evidence. While the "legal limit" in a given jurisdiction may be 0.10 percent BAC, many people will demonstrate impaired driving ability long before that limit is reached.

ILLEGAL PER SE LAW

DESCRIPTION

Most states include in their DWI Law or Implied Consent Law a provision making it illegal to drive with a proscribed blood alcohol concentration (BAC). This provision, often called an Illegal Per Se Law, creates another drinking-driving offense which is related to, but different from the basic DWI offense. Following is a typical Illegal Per Se Provision:

It is unlawful for any person to operate or be in actual physical control of any vehicle within this state while having a blood alcohol concentration of 0.10% or more.

The Illegal Per Se Law makes an offense in and of itself to drive while having a BAC of 0.10 percent or more. To convict a driver of an Illegal Per Se Violation, it is sufficient to establish that the driver's BAC was 0.10 percent or more while operating a vehicle in the state. It is not necessary to establish that the driver was under the influence.

The Illegal Per Se Law does not replace the basic DWI law. Rather the two work together. Each defines a separate offense:

- o The basic DWI Law makes it an offense to drive while under the influence of alcohol and/or any drug.
- o The Illegal Per Se Law makes it an offense to drive while having more than a certain percentage of alcohol in the blood.

For the basic DWI offense, the chemical test result is presumptive evidence. For the Illegal Per Se offense, the chemical test result is conclusive evidence.

PURPOSE

The principal purpose of the Illegal Per Se Law is to aid in prosecution of drinking-driving offenders. The law reduces the state's burden of proof. It is not necessary for the prosecutor to show that the driver was "under the influence." The state is not required to demonstrate that the driver's ability to drive was affected. It is sufficient for the state to show that the driver's BAC was 0.10% or more.

While the statute aids in prosecution, it does not really make drinking-driving enforcement easier. An officer must still have probable cause to believe that the driver is under the influence before an arrest can be made. The Implied Consent Law usually requires that the driver already be arrested before he or she is deemed to have consented to the chemical test. The law also requires that the arrest be made for "acts alleged to have been committed while operating a vehicle while under the influence." Therefore, the officer generally must establish probable cause that the offense has been committed and make a valid arrest before the chemical test can be administered.

SUMMARY

Police officers dealing with drinking-driving suspects must continue to rely primarily on their own powers of detection to determine whether an arrest should be made. Usually it is impossible to obtain a legally admissible chemical test result until after the driver has been arrested. Sometimes drivers will refuse the chemical test after they have been arrested. Then the case will depend strictly upon the officer's observations and testimony. When making a DWI arrest, always assume that the chemical test evidence will not be available. It is critical that you organize and present your observations and testimony in a clear and convincing manner. In this way, more drivers who violate drinking-driving laws will be convicted, regardless of whether they take the chemical tests, and regardless of the test results.

PRELIMINARY BREATH TEST LAW

DESCRIPTION

Many states have enacted preliminary breath testing (PBT) laws. These laws permit a police officer to request a driver suspected of DWI to submit to an on-the-spot breath test prior to arresting the driver for DWI. PBT laws vary significantly from one state to another. A typical statute reads as follows:

When an officer has reason to believe from the manner in which a person is operating or has operated a motor vehicle that the person has or may have committed the offense of operating while under the influence, the officer may request that person to provide a sample of breath for a preliminary test of the alcohol content of the blood using a device approved for this purpose.

APPLICATION

PBT results are used solely to help determine whether an arrest should be made. The results usually are not used as evidence against the driver in court. However, PBT laws may provide statutory or administrative penalties if the driver refuses to submit to the test. These penalties may include license suspension, fines or other sanctions.

TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. The elements of the Basic DWI Law are:

- a. PERSON IN QUESTION
- b. WAS OPERATING OR IN CONTROL
- c. OF A MOTOR VEHICLE / VEHICLE
- c. While \downarrow INTO INFLUENCE Alcohol / Drugs.

2. If DWI is a criminal offense, the standard of proof is THAT THE FACTS
MUST BE PROVEN BEYOND A REASONABLE DOUBT.

3. The purpose of the Implied Consent Law is TO ENCOURAGE PEOPLE TO
SUBMIT TO A CHEMICAL TEST TO PROVIDE SCIENTIFIC EVIDENCE
OF ALCOHOL INFLUENCE

4. Under the Implied Consent Law, chemical test evidence is PRESUMPTIVE
OF ALCOHOL INFLUENCE NOT CONCLUSIVE evidence.

5. The Illegal Per Se Law makes it unlawful to DRIVE OR BE IN CONTROL OF
A VEHICLE W/ A SET LEVEL OF INTOXICATION DETERMINED BY CHEMICAL
ANALYSIS.

6. The PBT law permits a police officer to request a driver suspected of DWI
to SUBMIT TO AN ON THE SPOT BREATH TEST PRIOR TO ARREST

7. PBT results are used solely to help determine WHETHER OR NOT AN
ARREST SHOULD BE MADE.

CASE LAW REVIEW

The following citations and summaries identify relevant DWI cases addressing horizontal gaze nystagmus and other aspects of field sobriety testing:

- o The State of Arizona (Petitioner)
v.
The Superior Court of the State of Arizona,
in and for the county of Cochise, and the
Hon. James L. Riles, Division III (Respondent)
and
Frederick Andrew Blake (Real Party in Interest)

No. 18343-PR
Court of Appeals
No. 2 CA-SA 0254
Cochise Co.
No. 11684
April 7, 1986

The Blake case established a very important precedent in Arizona. The trial court ruled that the HGN test was not reliable under Frye v. United States, 293 F.2d 1013 (DC Cir. 1923) and thus could not be used as part of probable cause. The case was dismissed by the trial court. This ruling was appealed by the state and the order of dismissal was reversed by the court of appeals and the case was remanded for further proceedings (7/25/85).

The appellate court decision was reviewed by the State Supreme Court. The State Supreme Court approved the court of appeal's opinion, as modified, and vacated the trial court's dismissal of the Blake prosecution for DWI and remanded the case for proceedings not inconsistent with its opinion.

Following is a summary of the facts of the case and a brief overview of the appellate court and Supreme court opinions.

FACTS: After the defendant was stopped for DUI, he was given field sobriety tests on which he did fair. The officer also administered a Horizontal Gaze Nystagmus (HGN) test and estimated that defendant's blood alcohol content was .17%. The intoxilizer showed a .163% reading. At the motion to suppress, the state presented testimony from the SCRI project director which originally researched the HGN test. The researchers found that they could determine whether a person was above or below a .10% blood alcohol level 80% of the time. Finnish researchers had reached the same results. The project director testified that HGN has been accepted by various researchers, various police agencies and the National Highway Traffic Safety Administration. The police officer who helped develop and standardize HGN testified about his field experience with HGN and his work in the research on HGN. The officer testified that HGN was particularly useful in detecting drivers who had over .10% alcohol in their blood who would otherwise pass the field sobriety tests. The Arizona officer who administers HGN training testified that experienced drinkers with .13 or .14 reading could pass the other

field sobriety tests and evade arrest. He testified that to be certified for HGN the officers have to attend a 20-hour course of instruction, have to perform 35 practice tests and then have to pass an exam where they must determine the blood alcohol level of suspects within .02% four out of five times. The training officer also testified that the officer must continue to use the test regularly in the field and should be evaluated to make sure the officer maintains his proficiency. The arresting officer testified that he was certified as an HGN specialist. The arresting officer testified without HGN results, he did not think he had probable cause to arrest the defendant. The trial court ruled that the HGN test was not reliable under Frye v. United States and thus could not be used as part of probable cause. Accordingly, the court dismissed the prosecution. The STATE appealed this decision.

ISSUE: Did the trial court err in excluding the HGN evidence?

RULING: Yes, "We conclude that the record shows not only that the HGN is sufficiently reliable to provide probable cause for arrest, but that with the proper foundation as to the expertise of the officer administering it, testimony concerning the administration of the test and its results is admissible at trial. The record shows that the HGN test has gained general acceptance in the field in which it belongs." The court went on to say that they were unable to rule on whether the results of this particular HGN test would be admissible because the only evidence about the officer's proficiency was his testimony that he was certified. The court of appeals noted that the officer kept a log of when he administered the test and said, "This log would be useful if it demonstrated that (the arresting officer) was as proficient in the field as he was on the examination." The order of dismissal is reversed and the case is remanded for further proceedings.

Mr Blake sought review of the court of appeals opinion and it was granted by the Arizona Supreme Court.

ISSUES:

- (1) Whether the HGN test is sufficiently reliable to establish probable cause to arrest for DWI, and
- (2) Whether HGN test results are sufficiently reliable to be introduced in evidence at trial.

CONCLUSION: "We find that the horizontal gaze nystagmus test properly administered by a trained police officer is sufficiently reliable to be a factor in establishing probable cause to arrest a driver for violating A.R.S. §28-692 (B). We further find that the horizontal gaze nystagmus test satisfies the Frye test for reliability and may be admitted in evidence to corroborate or attack, but not to quantify, the chemical analysis of the accused's blood alcohol content. It may not be used to establish the accused's level of blood alcohol in the absence of a chemical analysis showing the proscribed level in the accused's blood, breath or urine. In subsection (A) prosecutions it is admissible, as is other evidence of defendant's behavior, to prove that he was "under the influence."

We approve the court of appeals' opinion, as modified, vacate the trial court's dismissal of the Blake prosecution for violation of A.R.S. § 28-792 (B), and remand for proceedings not inconsistent with this opinion.

A detailed analysis of the facts reviewed by the Supreme Court is contained in the opinion.

- o People v. Loomis
City as 203 Cal. Rptr. 767
(Cal. Super. 1984)
Appellate Department, Superior Court
San Diego, County (CA)

Findings

- a. Arresting officer was not entitled to testify as lay witness or expert witness and give his opinion of blood alcohol level based on lateral gaze nystagmus test which the officer had administered.
- b. Nonexpert witness can testify to only those facts which he perceives with his senses.
- c. New form of evidence of scientific nature will be allowed only when there is preliminary showing of general acceptance of new technique in the scientific community.

- o State of Maryland
v.
Arthur Davidson
Circuit Court for Montgomery
County, Maryland
Criminal No. 36521
(April 25, 1985)

Findings

- a. Court concluded that the present state of development, based on testimony and exhibits presented, nystagmus test for blood alcohol content does not possess degree of reliability or acceptance in scientific community to permit its use as substantive evidence of guilt.
- b. However, use of HGN as field test to establish probable cause is permissible if defendant subsequently refuses chemical test, nystagmus cannot be used, over objection, as evidence of BAC at any later trial.

- o People of the State of Colorado
v.
Donald L. Guilmot
County Court, County of Boulder
Case No. 85T10439

Findings

- a. Motion to suppress HGN evidence was denied.
- b. "...officer may testify to results of all field sobriety tests, including HGN."

- o. **State of Ohio**
v.
Daniel T. Hintz
Court of Appeals, Sixth District
County of Lucas
CA No. L-84-377
(April 5, 1985)

Findings

- a. **"...objective of manifestations of insobriety, personally observed by the officer, are always relevant where, as in this type of case, the defendant's physical condition is in issue.**
 - b. **Assuming that a proper foundation has been laid for the admission of testimony concerning an officer's observation of a defendant who performs a horizontal gaze nystagmus test, his conclusions regarding the defendant's performance of such tests are admissible."**
- o. **State v. Nagel**
Ohio Court of Appeals
No. 2100
(February 5, 1986)

Findings

- a. **Court of appeals affirmed trial court's admission of testimony on HGN.**
- b. **Court rejected appellant's argument that HGN testimony was inadmissible because the testifying officer was not an expert and there was no scientific basis for the HGN test.**
- c. **Court held that nystagmus is objectively observable and requires no expert interpretation.**

An annotated list of scientific publications and research reports addressing nystagmus is attached.

/ SCIENTIFIC PUBLICATIONS AND RESEARCH
REPORTS ADDRESSING NYSTAGMUS

1. Anderson, Schweitz & Snyder, Field Evaluation of Behavioral Test Battery for DWI, U.S. Dept. of Transportation Rep. No. DOT-HS-806-475 (1983) (field evaluation of the field sobriety test battery (HGN, one leg stand, and walk and turn) conducted by police officers from four jurisdictions indicated that the battery was approximately 80% effective in determining BAC above and below .10 percent).
2. Aschan, Different Types of Alcohol Nystagmus, 140 ACTA OTOLARYNGOL SUPP. 69 (Sweden 1958) ("From a medico-legal viewpoint, simultaneous recording of AGN (Alcohol Gaze Nystagmus) and PAN (positional alcoholic nystagmus) should be of value, since it will show in which phase the patient's blood alcohol curve is...").
3. Aschan & Bergstedt, Positional Alcoholic Nystagmus in Man Following Repeated Alcohol Doses, 80 ACTA OTOLARYNGOL SUPP. 330 (Sweden 1975) (abstract available on DIALOG, file 173: Embase 1975-79) (degree of intoxication influences both PAN I and PAN II).
4. Aschan, Bergstedt, Goldberg & Laurell, Positional Nystagmus in Man During and After Alcohol Intoxication, 17 Q.J. OF STUD. ON ALCOHOL, Sept. 1956, at 381. Study distinguishing two types of alcohol-induced nystagmus, PAN (positional alcoholic nystagmus) I and PAN II, found intensity of PAN I, with onset about one-half hour after alcohol ingestion, was proportional to amount of alcohol taken.
5. Baloh, Sharma, Moskowitz & Griffith, Effect of Alcohol and Marijuana on Eye Movements, 50 AVIAT. SPACE ENVIRON. MED., Jan 1979, at 18 (abstract available on DIALOG, file 153: Medline 1979-79) (smooth pursuit eye movement effects of alcohol overshadowed those of marijuana).
6. Barnes, The Effects of Ethyl Alcohol on Visual Pursuit and Suppression of the Vestibulo-Ocular Reflex, 406 ACTA OTOLARYNGOL SUPP. 161 (Sweden 1984) (ethyl alcohol disrupted visual pursuit eye movement by increasing number of nystagmic "catch-up saccades").
7. Burnes & Moskowitz, Psychophysical Tests for DWI Arrest, U.S. Dept. of Transportation Rep. No. DOT-HS-802-424 (1977) (recommended the three-test battery developed by SCRI (one leg stand, walk and turn, and HGN) to aid officers in discriminating BAC level).
8. Compton, Use of the Gaze Nystagmus Test to Screen Drivers at DWI Sobriety Checkpoints, U.S. Dept. of Transportation (1984) (field evaluation of HGN test administered to drivers through car window in approximately 40 seconds: "the nystagmus test scored identified 95% of the impaired drivers" at 2; 15% false positive for sober drivers, id.).
9. Church & Williams, Dose- and Time-Dependent Effects of Ethanol, 54 ELECTROENCEPHALOGRAPHY & CLIN. NEUROPHYSIOL., Aug. 1982, at 161 (abstract available on DIALOG, file 11: Psychinfo 1967-85 or file 72: Embase 1982-85) (positional alcohol nystagmus increased with dose levels of ethanol).

10. Fregly, Bergstedt & Graybiel, Relationships Between Blood Alcohol, Positional Alcohol Nystagmus and Postural Equilibrium, 28 Q.J. OF STUD. ON ALCOHOL, March 1967, at 11, 17 (declines from baseline performance levels correlated with peak PAN I responses and peak blood alcohol levels).
11. Goldberg, Effects and After-Effects of Alcohol, Tranquilizers and Fatigue on Ocular Phenomena, ALCOHOL AND ROAD TRAFFIC 123 (1963) (of different types of nystagmus; alcohol gaze nystagmus is the most easily observed).
12. Helzer, Detection DUIs Through the Use of Nystagmus, LAW AND ORDER, Oct. 1984, at 93 (nystagmus is "a powerful tool for officers to use at roadside to determine BAC of stopped drivers...(O)fficers can learn to estimate BACs to within an average of 0.02 percent of chemical test readings." Id. at 94).
13. L.R. Erwin, DEFENSE OF DRUNK DRIVING CASES (3d ed. 1985) ("A strong correlation exists between the BAC and the angle of onset of (gaze) nystagmus." Id. at 8.15A(3).
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16. Murphree, Price & Greenberg, Effect of Congeners in Alcohol Beverages on the Incidence of Nystagmus, 27 Q.J. OF STUD. ON ALCOHOL, June 1966, at 201 (positional nystagmus is a consistent, sensitive indicator of alcohol intoxication).
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1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific requirements for record-keeping, including the need for clear, legible entries and the requirement to retain records for a minimum of seven years.

3. The third part of the document discusses the consequences of non-compliance with the record-keeping requirements, including the potential for civil and criminal penalties.

4. The fourth part of the document provides a summary of the key points discussed in the document and offers recommendations for ensuring compliance with the record-keeping requirements.

5. The fifth part of the document discusses the importance of regular audits and the role of the Internal Revenue Service (IRS) in enforcing the record-keeping requirements.

6. The sixth part of the document discusses the importance of maintaining accurate records of all transactions, including those that are not required to be reported to the IRS.

7. The seventh part of the document discusses the importance of maintaining accurate records of all transactions, including those that are not required to be reported to the IRS.

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FILED
APR -7 1986
DAVID H. COLE
CLERK SUPREME COURT

IN THE SUPREME COURT OF THE STATE OF ARIZONA.
En Banc

THE STATE OF ARIZONA,)
)
 Petitioner,)
)
 v.)
)
 THE SUPERIOR COURT OF THE STATE)
 OF ARIZONA, in and for the)
 COUNTY OF COCHISE, and the HON.)
 JAMES L. RILEY, DIVISION III,)
)
 Respondent,)
)
 and)
)
 FREDERICK ANDREW BLAKE,)
)
 Real Party in Interest.)

No. 18343-PR

Court of Appeals
No. 2 CA-SA 0254

Cochise County
No. 11684

Appeal from Special Action
Court of Appeals, Division Two

REMANDED

Opinion of the Court of Appeals, Division Two,
___ Ariz. ___, ___ P.2d ___ (1985)
Affirmed

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FELDMAN, Justice

Frederick Andrew Blake, real party in interest, sought review of an opinion of the court of appeals that vacated the trial court's dismissal of his prosecution. State v. Superior Court (2 CA-SA 0254, filed July 25, 1985). We granted review because this is a case of first impression which presents significant issues of statewide importance to law enforcement. Rule 23, Ariz.R.Civ.App.P. 17A A.R.S. We have jurisdiction under Ariz. Const. art. 6, § 5(3) and A.R.S. § 12-120.24. The issues raised are

1. whether the horizontal gaze nystagmus test is sufficiently reliable to establish probable cause for arrest for DUI, and
2. whether horizontal gaze nystagmus test results are sufficiently reliable to be introduced in evidence at trial.

FACTS

In the early morning hours of March 18, 1985, Frederick Blake was driving a car on State Route 92, south of Sierra Vista. He was stopped by Officer Hohn who had observed the vehicle meandering within its lane, and who therefore suspected Blake of driving under the influence of alcohol. Noting, also, that Blake's appearance and breath indicated intoxication, the officer had Blake perform a battery of six field sobriety tests, including the horizontal gaze nystagmus (HGN) test. Nystagmus is an involuntary jerking of the eyeball. The jerking may be aggravated by central nervous system depressants such as alcohol

or barbiturates. See THE MERCK MANUAL OF DIAGNOSIS AND THERAPY 1980 (14th ed. 1982). Horizontal gaze nystagmus is the inability of the eyes to maintain visual fixation as they are turned to the side.

In the HGN test the driver is asked to cover one eye and focus the other on an object (usually a pen) held by the officer at the driver's eye level. As the officer moves the object gradually out of the driver's field of vision toward his ear, he watches the driver's eyeball to detect involuntary jerking. The test is repeated with the other eye. By observing (1) the inability of each eye to track movement smoothly, (2) pronounced nystagmus at maximum deviation and (3) onset of the nystagmus at an angle less than 45 degrees in relation to the center point, the officer can estimate whether the driver's blood alcohol content (BAC) exceeds the legal limit of .10 percent. Officer Hohn had been trained in the use of the HGN test and certified to administer it by the Arizona Law Enforcement Officer Advisory Council (ALEOC) pursuant to A.R.S. § 41-1822(4).

Blake's performance of the first three standard field sobriety tests was "fair" and did not amount to probable cause to arrest Blake for DUI. As a result of the HGN test, however, the officer estimated that Blake had a BAC in excess of .10 percent. Blake's performance on the last two tests strengthened his conclusion. Having also smelled a strong odor of alcohol on Blake's breath and noticed Blake's slurred speech and bloodshot, watery and dilated eyes, Officer Hohn then arrested Blake on a

charge of felony DUI in violation of A.R.S. § 28-692. Hohn then transported Blake to the police station where he administered an intoxilyzer test which showed that Blake had a BAC of .163 percent.

Blake made two motions to the trial court: to dismiss the prosecution for lack of probable cause to arrest and to preclude the admission of testimony of the HGN test and its results at trial. At the evidentiary hearing on these two motions the state presented evidence regarding the principles and use of HGN testing from Dr. Marcelline Burns, a research psychologist who studies the effect of alcohol on behavior, Sgt. Richard Studdard of the Los Angeles Police Department, and Sgt. Jeffrey Raynor and Officer Robert Hohn of the Arizona Department of Public Safety.

Dr. Burns, Director the Southern California Research Institute (SCRI or Institute) testified that the Institute had received research contracts from the National Highway Traffic Safety Administration (NHTSA) to develop the best possible field sobriety tests. The result of this research was a three-test battery, which included the walk and turn, the one-leg stand, and the HGN. This battery could be administered without special equipment, required no more than five minutes in most cases, and resulted in 83 percent accuracy in determining BAC above and below .10 percent. Dr. Burns testified that all field sobriety tests help the police officers to estimate BAC. The HGN test is based on the known principle that certain toxic substances, including alcohol, cause nystagmus. The SCRI study found HGN to

be the best single index of intoxication, because it is an involuntary response. BAC can even be estimated from the angle of onset of the involuntary jerking: 50 degrees minus the angle of the gaze at the onset of eye oscillation equals the BAC.¹ Dr. Burns testified that the HGN test had been accepted as valid by the highway safety field, including the NHTSA, Finnish researchers, state agencies such as the California Highway Patrol, Arizona Highway Patrol, Washington State Police, and numerous city agencies. Finally, the state offered in evidence an HGN training manual developed by the NHTSA for its nationwide program to train law enforcement officers. Both the manual and training program were based on the Institute's studies.

Sgt. Studdard is currently a supervisor in charge of DUI enforcement for the City of Los Angeles and a consultant to NHTSA on field sobriety testing. Based on his field work administering the HGN test and his participation in double blind studies at the Institute, he testified that the accuracy rate of the HGN test in estimating whether the level of BAC exceeds .10 percent is

¹ Thus, nystagmus at 45° corresponds to a blood alcohol content (BAC) of 0.05%; nystagmus at 40° to a BAC of 0.10%; nystagmus at 35° to a BAC of 0.15%; and nystagmus at 30° to a BAC of 0.20%. See 1 R. ERWIN, DEFENSE OF DRUNK DRIVING CASES (3d ed. 1985) § 8.15A[1]. At BACs above 0.20%, a person's eyes may not be able to follow a moving object. Tharp, Gaze Nystagmus As A Roadside Sobriety Test 6 (unpublished paper available through SCRI). It should be noted however that when officers administer the test they do not necessarily measure the angle of onset; instead they look for three characteristics of high BAC: inability of smooth pursuit, distinct jerkiness at maximum deviation and onset of jerkiness prior to 45°. We do not address the admissibility of quantified BAC estimates based on angle of onset of nystagmus.

between 80 and 90 percent. According to Studdard the margin of inaccuracy is caused by the fact that certain drugs, such as barbiturates, cause the same effects as alcohol. We take notice, however, that nystagmus may also indicate a number of neurological conditions, and the presence of any of these would also affect the accuracy of the HGN-based estimate of blood alcohol content. See infra at 14. Both Sgt. Studdard and Sgt. Raynor, who currently administers the HGN training program for the State of Arizona, testified that the HGN test is especially useful in detecting violations where a driver with BAC over .10 percent is able to pull himself together sufficiently to pass the traditional field sobriety tests and thus avoid arrest and subsequent chemical testing.

Sgt. Raynor testified that the traditional field sobriety tests are not sensitive enough to detect dangerously impaired drivers with BAC between .10 percent and .14 percent and that the police officers thus must permit them to drive on.² Sgt. Raynor also testified as to the rigor and requirements of the Arizona training and certification program.

At the close of the evidentiary hearing, the trial court concluded that HGN represented a new scientific principle and was therefore subject to the Frye standard of admissibility. Frye v.

² It is claimed that three times as many drivers on the road have BAGs in the .10% to .14% range than in the .15% to .19% range, but those arrested are in the latter group, 2 to 1. Anderson, Schweitz & Snyder, Field Evaluation of a Behavioral Test Battery for DWI, U.S. Department of Transportation Rep. No. DOT HS-806-475 (1983) (included in state's evidence).

United States, 293 F. 1013 (D.C. Cir. 1923). The court ruled the HGN test did not satisfy Frye, was therefore unreliable, and could not form the basis of probable cause. The court granted Blake's motion to dismiss.

The state filed a petition for special action³ in the court of appeals, which accepted jurisdiction and granted relief. The court of appeals noted that the Frye standard applies only to the admissibility of evidence at trial, not to probable cause for arrest. It stated that probable cause requires only reasonably trustworthy information sufficient to lead a reasonable person to believe that an offense has been committed and that the person to be arrested committed the offense. Slip op. at 4. The court of appeals found HGN sufficiently reliable to provide probable cause. Id. at 10. The court of appeals held that the HGN test satisfied Frye and would be admissible, except that there was insufficient foundation as to the arresting officer's proficiency in administering the test. Id. The court vacated the trial court's order and remanded for further proceedings.

DISCUSSION

1. Was Blake's Arrest Legal?

Blake contends that the trial court correctly dismissed the prosecution after ruling that the HGN test did not meet the Frye

³ In Arizona, relief formerly obtained by writs of mandamus or prohibition is now obtained by "Special Action". See Rule 1, Arizona Rules of Procedure for Special Actions, 17A A.R.S.

standard. Because probable cause was established by "an unreliable test, the HGN, which has not had its trustworthiness corroborated," the arrest was illegal, and later discovered evidence, such as the intoxilyzer results, cannot be used in evidence.

The Pima County Public Defender, appearing amicus, argues that any roadside sobriety test is a full search and must, therefore, be founded on probable cause. Because the arresting officer testified that he did not have probable cause to arrest even after the performance of the traditional field tests, amicus argues that he did not have the requisite probable cause to administer the HGN test. For this contention amicus relies on People v. Carlson, 677 P.2d 310, 317 (Colo. 1984), in which the Colorado Supreme Court held that "roadside sobriety testing constitutes a full 'search' in the constitutional sense of that term and therefore must be supported by probable cause."

For the reasons set forth below we agree with both of the state's arguments. First, administration of roadside, performance-based sobriety tests does not require probable cause. Second, neither evidence that forms the basis for probable cause nor that required to raise a reasonable suspicion need be tested under the Frye rule.

Did the Stop Followed by Field Sobriety Tests
Violate the Fourth Amendment?

The fourth amendment to the United States Constitution guarantees the right to be secure against unreasonable search and

seizure. This guarantee requires arrests to be based on probable cause and permits limited investigatory stops based only on an articulable reasonable suspicion of criminal activity. Terry v. Ohio, 392 U.S. 1, 88 S. Ct. 1868 (1968). Such stops are permitted although they constitute seizures under the fourth amendment. See State v. Graciano, 134 Ariz. 35, 37, 653 P.2d 683, 685 (1982). Officer Hohn testified that he stopped Blake because Blake's car had been weaving in its lane, and he suspected the driver to be under the influence of alcohol. We find that Blake's weaving was a specific and articulable fact which justified an investigatory stop. The next question is whether this reasonable suspicion also justified compelling Blake to perform roadside sobriety tests.

An investigatory stop may include a safety frisk for weapons as well as questions to dispel the officer's reasonable suspicions. Terry, 392 U.S. at 22, 88 S. Ct. at 1880. While all this may be done without the probable cause required for arrest, an arrest may occur before the moment the police officer either accuses the suspect of a specific offense or formally takes him into custody. It may be deemed to have occurred substantially before that time, perhaps during questioning. See State v. Winegar (S. Ct. No. 6131, slip op. at 17, filed December 4, 1985).

In this case we confront the difficult area between the physical stop of defendant and the articulation of the charge. We must draw the line, however fine, between investigatory questioning that is permissible before the arrest and acts

permissible only after the charges have been made. See People v. Milham, 159 Cal. App. 3d 487, 500, 205 Cal. Rptr. 688, 697 (1984) (at scene of fatal car accident, field sobriety tests were investigatory). In a sense this is a question of first impression. Our cases in the past have presumed that roadside sobriety tests are incident to the stop, and that chemical tests, such as the intoxilyzer, are incident to the arrest. See Fuenning v. Superior Court, 139 Ariz. 590, 680 P.2d 121 (1983).

Any examination of a person with a view to discovering evidence of guilt to be used in a prosecution of a criminal action is a search. The fourth amendment does not prohibit all warrantless searches, only those that are unreasonable. State v. Hutton, 110 Ariz. 339, 341, 519 P.2d 38, 40 (1974); State v. Grijalva, 111 Ariz. 476, 478, 533 P.2d 533, 535, cert. denied, 423 U.S. 873, 96 S. Ct. 141 (1975). Whether the fourth amendment permits a warrantless search supported only by reasonable suspicion depends on the nature of both the governmental interest and the intrusion into a citizen's personal security. State v. Grijalva, supra. Thus, the necessity of the search is balanced against the invasion of the privacy of the citizen that the search entails. Id.

We have held that the state has a compelling interest in removing drunk drivers from the highways. Fuenning v. Superior Court, 139 Ariz. at 595, 680 P.2d at 126. The legislature has recognized the threat of drunk drivers and enacted A.R.S. § 28-692(B), which makes it per se illegal to drive with a BAC of

.10 percent or more, a level at which virtually everyone's driving ability is impaired. Id. Against this compelling state interest we are to weigh the substantiality of the intrusion or inconvenience of roadside sobriety tests that measure physical performance of the suspected drunk driver.

In Terry the Supreme Court stated:

We merely hold today that where a police officer observes unusual conduct which leads him reasonably to conclude in light of his experience that criminal activity may be afoot and that persons with whom he is dealing may be armed and presently dangerous, where in the course of investigating this behavior he identifies himself as a policeman and makes reasonable inquiries, and nothing in the initial stages of the encounter serves to dispel his reasonable fear for his own or others' safety, he is entitled for the protection of himself and others in the area to conduct a carefully limited search of the outer clothing of such persons in an attempt to discover weapons which might be used to assault him.

392 U.S. at 30, 88 S. Ct. at 1884.

We think Terry is on point: the threat to public safety posed by a person driving under the influence of alcohol is as great as the threat posed by a person illegally concealing a gun. If nothing in the initial stages of the stop serves to dispel the highway patrol officer's reasonable suspicion, fear for the safety of others on the highway entitles him to conduct a "carefully limited search" by observing the driver's conduct and performance of standard, reasonable tests to discover whether the driver is drunk. The battery of roadside sobriety tests is such a limited search. The duration and atmosphere of the usual traffic stop make it more analogous to a so-called Terry stop

than to a formal arrest. See Berkemer v. McCarty, ___ U.S. ___, 104 S. Ct. 3138, 3150 (1984). We refuse to adopt the rule of People v. Carlson, supra.

We hold, therefore, that roadside sobriety tests that do not involve long delay or unreasonable intrusion, although searches under the fourth amendment, may be justified by an officer's reasonable suspicion (based on specific, articulable facts) that the driver is intoxicated. We further find that Blake's erratic driving, appearance and smell of alcohol were specific, articulable facts which gave the officer sufficient grounds to administer roadside sobriety tests, including HGN.

Is the HGN Test Sufficiently Reliable to Establish Probable Cause for Arrest?

Observing Blake's performance of the tests, the officer put him under arrest and took him to the station for chemical testing for BAC. Blake argues the arrest was invalid for lack of probable cause and that the information obtained by later chemical testing is therefore inadmissible.

Probable cause may not rest on mere suspicion but neither must it rest on evidence sufficient to convict.

In dealing with probable cause ... we deal with probabilities. These are not technical; they are the factual and practical considerations of everyday life on which reasonable [people], not legal technicians, act.

Brinegar v. United States, 338 U.S. 160, 175, 69 S. Ct. 1302, 1310 (1949). Information sufficient to raise a suspicion of criminal behavior by definition need not pass tests of

admissibility under our rules of evidence. It has long been the rule that an arresting officer has probable cause if he has reasonably trustworthy information sufficient to lead a responsible person to believe an offense has been committed and that the person to be arrested committed it. See id. at 175-76, 69 S. Ct. at 1310-11; State v. Nelson, 129 Ariz. 582, 586, 633 P.2d 391, 395 (1981). We now must determine whether the HGN test provides reasonably trustworthy information, sufficient to lead a reasonable person to believe a driver is intoxicated.

Nystagmus is a well known physiological phenomenon, defined and described in such tomes as WEBSTER'S NEW COLLEGIATE DICTIONARY (1980), DORLAND'S ILLUSTRATED MEDICAL DICTIONARY (25th ed. 1974), 7 ENCYCLOPAEDIA BRITANNICA, MICROPAEDIA (15th ed. 1974) and STEDMAN'S MEDICAL DICTIONARY (5th Lawyer's ed. 1982). That it can be caused by ingestion of alcohol is also accepted in medical literature.

Jerk nystagmus ... is characterized by a slow drift, usually away from the direction of gaze, followed by a quick jerk of recovery in the direction of gaze. A motor disorder, it may be congenital or due to a variety of conditions affecting the brain, including ingestion of drugs such as alcohol and barbiturates, palsy of lateral or vertical gaze, disorders of the vestibular apparatus and brainstem and cerebellar dysfunction.

THE MERCK MANUAL OF DIAGNOSIS AND THERAPY 1980 (14th ed. 1982) (emphasis added). Even before the Institute's federal grant, the relationship between BAC and nystagmus was recognized by some highway safety agencies as a tool to detect those illegally driving under the influence of alcohol. Burns & Moskowitz,

Psychophysical Tests for DWI Arrest, U.S. Department of Transportation Rep. No. DOT-HS-802-424 (1977), at 80. In its federally funded study, the Institute discovered that of the six most sensitive field sobriety tests being used by the police around the country, the HGN was the most reliable and precise indicator of the proscribed level of BAC. Id. at 39.

Judicial assessment of whether the arresting officer had probable cause need not rest, however, on whether the information relied on is universally known. The arresting officer is entitled to draw specific reasonable inferences from the facts in light of his own experience, as well as the transmitted experience of other police officers. See Terry v. Ohio, supra; State v. Ochoa, 112 Ariz. 582, 585-86, 544 P.2d 1097, 1100-01 (1976). In this case Officer Hohn's experience included training in DUI detection and field administrations of the HGN test. His administration of the test did not cause him to arrest everyone he tested. He testified that although he had logged over 150 field administrations of the test battery, he had made only six DUI arrests. On the evening of Blake's arrest Officer Hohn had made between eight and twelve DUI stops, had given the battery to all, but found probable cause to arrest only Blake.

Testimony also showed that Officer Hohn's personal experience is the result of the transmitted experience of countless other trained highway safety officers. Dr. Burns testified that in a survey of the first 800 officers trained, over 80 percent rated HGN as the most sensitive roadside sobriety test and found the test battery to have increased their accuracy in recognizing the

impaired driver. Sgt. Studdard, who estimated he had administered the HGN test on the street to several thousand individuals, had seen only one or two people in whom the nystagmus did not correlate to the BAC. He testified that he had trained numerous agencies in Arizona, Michigan, New York, Arkansas, Louisiana, North Carolina and Maryland in the use of HGN. He found that the officers' accuracy rate in determining BAC was between 80 and 90 percent.

We conclude that the testimony presented at the evidentiary hearing regarding the reliability of the HGN test establishes that in the hands of a trained officer the test is reasonably trustworthy and may be used to help establish probable cause to arrest. We further find that Blake's driving, his "fair performance" on the traditional sobriety tests, the smell of alcohol on his breath, his appearance and his score on the HGN test could lead a reasonable person to believe Blake was driving with a BAC in excess of .10 percent in violation of A.R.S.

§ 28-962. Taken together there was more than sufficient evidence to establish probable cause. People v. Milham, 159 Cal. App. 3d 487, 495, 205 Cal. Rptr. 688, 693 (1984); People v. Trevisanut, 160 Cal. App. 3d Supp. 12, ___, 207 Cal. Rptr. 921, 924 (Cal. Super. 1984). Because the trial court ruled that admissibility under Frve was a prerequisite for evidence used to establish probable cause, we vacate the trial court's order of dismissal of the case and remand the matter for trial.

technique based upon scientific principles, its reliability is to be measured against the Frye standard. Id. Frye screens out unreliable scientific evidence because under its standard

it is not enough that a qualified expert, or even several experts, testify that a particular scientific technique is valid; Frye imposes a special burden -- the technique must be generally accepted by the relevant scientific community.

Symposium on Science and Rules of Evidence, 99 F.R.D. 188, 189 (1984) (emphasis in original). Recognizing that judges and juries are not always in a position to assess the validity of the claims made by an expert witness before making findings of fact, Frye guarantees that reliability will be assessed by those in the best position to do so: members of the relevant scientific field who can dispassionately study and test the new theory.

If the scientific principle has gained general acceptance in the particular field in which it belongs, evidence resulting from its application is admissible, "subject to a foundational showing that the expert was qualified, the technique was properly used, and the results were accurately recorded." Collins, 132 Ariz. at 196, 644 P.2d at 1282. To determine whether the HGN test satisfies the test of general acceptance we must (1) identify the appropriate scientific community whose acceptance of the nystagmus principles and validity of the HGN test is required, and (2) determine whether there is general acceptance of both the scientific principle and the technique applying the theory. See Symposium, 99 F.R.D. at 193; M. UDALL & J. LIVERMORE, supra. The admissibility of HGN test results under the Frye standard is an

relevant communities a considerable period of time for any opposing views to have surfaced. See Appendix B.

Based on all the evidence we conclude there has been sufficient scrutiny of the HGN test to permit a conclusion as to reliability. The "general acceptance" requirement does not necessitate a showing of universal acceptance of the reliability of the scientific principle and procedure. United States v. Brown, 557 F.2d 541, 556 (6th Cir. 1977) (unanimity of scientific opinion is not required); J. RICHARDSON, MODERN SCIENTIFIC EVIDENCE 164 (2d ed. 1974) ("substantial majority" is sufficient to show general acceptance). Neither must the principle and procedure be absolutely accurate or certain. State v. Valdez, 91 Ariz. at 280, 371 P.2d at 898.

We believe that the HGN test satisfies the Frve standard. The evidence demonstrates that the following propositions have gained general acceptance in the relevant scientific community: (1) HGN occurs in conjunction with alcohol consumption; (2) its onset and distinctness are correlated to BAC; (3) BAC in excess of .10 percent can be estimated with reasonable accuracy from the combination of the eyes' tracking ability, the angle of onset of nystagmus and the degree of nystagmus at maximum deviation; and (4) officers can be trained to observe these phenomena sufficiently to estimate accurately whether BAC is above or below .10 percent. We therefore hold that, with proper foundation as to the techniques used and the officer's ability to use it (see Collins, 132 Ariz. at 196, 644 P.2d at 1282), testimony of defendant's nystagmus is admissible on the issue of a defendant's

blood alcohol level as would be other field sobriety test results on the question of the accuracy of the chemical analysis.

Our holding does not mean that evidence of nystagmus is admissible to prove BAC of .10 percent or more in the absence of a laboratory chemical analysis of blood, breath or urine. Such a use of HGN test results would raise a number of due process problems different from those associated with the chemical testing of bodily fluids. The arresting officer's "reading" of the HGN test cannot be verified or duplicated by an independent party. See Scales v. City Court of Mesa, 122 Ariz. 231, 594 P.2d 97 (1979). The test's recognized margin of error provides problems as to criminal convictions which require proof of guilt beyond a reasonable doubt. The circumstances under which the test is administered at roadside may affect the reliability of the test results. Nystagmus may be caused by conditions other than alcohol intoxication. And finally, the far more accurate chemical testing devices are readily available.

Our limitation on the use of HGN test results is also consistent with Arizona's DUI statute. When referring to the tests to be administered to determine BAC, the statute speaks in terms of taking blood, urine and breath samples from the defendant for analysis. See A.R.S. § 28-692(H). Clearly, BAC under § 12-692 is to be determined deductively from analysis of bodily fluids, not inductively from observation of involuntary bodily movements.

We also hold, therefore, that regardless of the quality and abundance of other evidence, a person may not be convicted of a

violation of A.R.S. § 28-692(B) without chemical analysis of blood, breath or urine showing a proscribed blood alcohol content pursuant to title 28, article 5 of the Arizona revised statutes. Similarly, the presumption under A.R.S. § 28-692(E)(3) that a defendant was under the influence of intoxicating liquor in violation of subsection (A) must also rest on chemical "analysis of the defendant's blood, urine, breath or other bodily substance," A.R.S. § 28-692(E), as the statute clearly states, and not on a BAC estimate based on nystagmus. Thus, evidence of HGN test results is admissible, as is other evidence in subsection (B) cases, only to corroborate the challenged accuracy of the chemical test results. See Fuenning v. Superior Court, 139 Ariz. at 599, 680 P.2d at 130. It is admissible in subsection (A) cases for the same purpose and, also, as evidence that the driver is "under the influence." It is not admissible in any criminal case as direct independent evidence to quantify blood alcohol content.

CONCLUSION

We find that the horizontal gaze nystagmus test properly administered by a trained police officer is sufficiently reliable to be a factor in establishing probable cause to arrest a driver for violating A.R.S. § 28-692(B). We further find that the horizontal gaze nystagmus test satisfies the Frve test for reliability and may be admitted in evidence to corroborate or attack, but not to quantify, the chemical analysis of the accused's blood alcohol content. It may not be used to establish

the accused's level of blood alcohol in the absence of a chemical analysis showing the proscribed level in the accused's blood, breath or urine. In subsection (A) prosecutions it is admissible, as is other evidence of defendant's behavior, to prove that he was "under the influence."

We approve the court of appeals' opinion, as modified, vacate the trial court's dismissal of the Blake prosecution for violation of A.R.S. § 28-692(B), and remand for proceedings not inconsistent with this opinion.

STANLEY G. FELDMAN, Justice

CONCURRING:

WILLIAM A. HOLOHAN, Chief Justice

FRANK X. GORDON, JR., Vice Chief Justice

JACK D. H. HAYS, Justice

JAMES DUKE CAMERON, Justice

APPENDIX A

1. Anderson, Schweitz & Snyder, Field Evaluation of a Behavioral Test Battery for DWI, U.S. Dept. of Transportation Rep. No. DOT-HS-806-475 (1983) (field evaluation of the field sobriety test battery (HGN, one leg stand, and walk and turn) conducted by police officers from four jurisdictions indicated that battery was approximately 80 percent effective in determining BAC above and below .10 percent).
2. Burns & Moskowitz, Psychophysical Tests for DWI Arrest, U.S. Dept. of Transportation Rep. No. DOT-HS-802-424 (1977) (recommended the three-test battery developed by SCRI (one leg stand, walk and turn, and HGN) to aid officers in discriminating BAC level).
3. Compton, Use of the Gaze Nystagmus Test to Screen Drivers at DWI Sobriety Checkpoints, U.S. Dept. of Transportation (1984) (field evaluation of HGN test administered to drivers through car window in approximately 40 seconds: "the nystagmus test scores identified 95% of the impaired drivers" at 2; 15 percent false positive for sober drivers, id.).
4. 1 R. ERWIN, DEFENSE OF DRUNK DRIVING CASES (3d ed. 1985) ("A strong correlation exists between the BAC and the angle of onset of [gaze] nystagmus." Id. at § 8.15A[3]).
5. Rashbass, The Relationship Between Saccadic and Smooth Tracking Eye Movements, 159 J. PHYSIOL. 326 (1961) (barbiturate drugs interfere with smooth tracking eye movement).
6. Tharp, Burns & Moskowitz, Development and Field Test of

Psychophysical Tests for DWI Arrests, U.S. Dept. of Transportation Rep. No. DOT-HS-805-864 (1981) (standardized procedures for administering and scoring the SCRI three-test battery; participating officers able to classify 81 percent of volunteers above or below .10 percent).

7. Wilkinson, Kime & Purnell, Alcohol and Human Eye Movement, 97 BRAIN 785 (1974) (oral dose of ethyl alcohol impaired smooth pursuit eye movement of all human subjects).

APPENDIX B

1. Aschan, Different Types of Alcohol Nystagmus, 140 ACTA OTOLARYNGOL SUPP. 69 (Sweden 1958) ("From a medico-legal viewpoint, simultaneous recording of AGN [Alcohol Gaze Nystagmus] and PAN [positional alcoholic nystagmus] should be of value, since it will show in which phase the patient's blood alcohol curve is....").
2. Aschan & Bergstedt, Positional Alcoholic Nystagmus in Man Following Repeated Alcohol Doses, 80 ACTA OTOLARYNGOL SUPP. 330 (Sweden 1975) (abstract available on DIALOG, file 173:Embase 1975-79) (degree of intoxication influences both PAN I and PAN II).
3. Aschan, Bergstedt, Goldberg & Laurell, Positional Nystagmus in Man During and After Alcohol Intoxication, 17 Q. J. OF STUD. ON ALCOHOL, Sept. 1956, at 381. Study distinguishing two types of alcohol-induced nystagmus, PAN (positional alcoholic nystagmus) I and PAN II, found intensity of PAN I, with onset about one-half hour after alcohol ingestion, was proportional to amount of alcohol taken.
4. Baloh, Sharma, Moskowitz & Griffith, Effect of Alcohol and Marijuana on Eye Movements, 50 AVIAT. SPACE ENVIRON. MED., Jan. 1979, at 18 (abstract available on DIALOG, file 153:Medline 1979-79) (smooth pursuit eye movement effects of alcohol overshadowed those of marijuana).
5. Barnes, The Effects of Ethyl Alcohol on Visual Pursuit and Suppression of the Vestibulo-Ocular Reflex, 406 ACTA OTOLARYNGOL SUPP. 161 (Sweden 1984) (ethyl alcohol disrupted

visual pursuit eye movement by increasing number of nystagmic "catch-up saccades").

6. Church & Williams, Dose- and Time-Dependent Effects of Ethanol, 54 ELECTROENCEPHALOGRAPHY & CLIN. NEUROPHYSIOL., Aug. 1982, at 161 (abstract available on DIALOG, file 11:Psychinfo 1967-85 or file 72:Embase 1982-85) (positional alcohol nystagmus increased with dose levels of ethanol).

7. Fregly, Bergstedt & Graybiel, Relationships Between Blood Alcohol, Positional Alcohol Nystagmus and Postural Equilibrium, 28 Q. J. OF STUD. ON ALCOHOL, March 1967, at 11, 17 (declines from baseline performance levels correlated with peak PAN I responses and peak blood alcohol levels).

8. Goldberg, Effects and After-Effects of Alcohol, Tranquilizers and Fatigue on Ocular Phenomena, ALCOHOL AND ROAD TRAFFIC 123 (1963) (of different types of nystagmus, alcohol gaze nystagmus is the most easily observed).

9. Helzer, Detecting DUIs Through the Use of Nystagmus, LAW AND ORDER, Oct. 1984, at 93 (nystagmus is "a powerful tool for officers to use at roadside to determine BAC of stopped drivers ... [O]fficers can learn to estimate BACs to within an average of 0.02 percent of chemical test readings." Id. at 94).

10. Lehti, The Effect of Blood Alcohol Concentration on the Onset of Gaze Nystagmus, 136 BLUTALKOHOL 414 (West Germany 1976) (abstract available on DIALOG, file 173:Embase 1975-79) (noted a statistically highly significant correlation between BAC and the angle of onset of nystagmus with respect to the midpoint of the field of vision).

11. Mizoi, Hishida & Maeba, Diagnosis of Alcohol Intoxication by the Optokinetic Test, 30 Q. J. OF STUD. ON ALCOHOL 1 (March-June 1969) (optokinetic nystagmus, ocular adaptation to movement of object before eyes, can also be used to detect central nervous system impairment caused by alcohol. Optokinetic nystagmus is inhibited at BAC of only .051 percent and can be detected by optokinetic nystagmus test. Before dosage subjects could follow a speed of 90 degrees per second; after, less than 70 degrees per second).

12. Murphree, Price & Greenberg, Effect of Congeners in Alcoholic Beverages on the Incidence of Nystagmus, 27 Q. J. OF STUD. ON ALCOHOL, June 1966, at 201 (positional nystagmus is a consistent, sensitive indicator of alcohol intoxication).

13. Nathan, Zare, Ferneau & Lowenstein, Effects of Congener Differences in Alcoholic Beverages on the Behavior of Alcoholics, 5 Q. J. OF STUD. ON ALCOHOL SUPP., May 1970, at 87 (abstract available on DIALOG, file 11:Psycinfo 1967-85) (incidence of nystagmus and other nystagmoid movements increased with duration of drinking).

14. Norris, The Correlation of Angle of Onset of Nystagmus With Blood Alcohol Level: Report of a Field Trial, CALIF. ASS'N CRIMINALISTICS NEWSLETTER, June 1985, at 21 (The relationship between the ingestion of alcohol and the onset of various kinds of nystagmus "appears to be well documented." Id. "While nystagmus appears to be useful as a roadside sobriety test, at this time, its use to predict a person's blood alcohol level does not appear to be warranted." Id. at 22).

15. Nuotto, Palva & Seppala, Naloxone Ethanol Interaction in Experimental and Clinical Situations, 54 ACTA PHARMACOL. TOXICOL. 278 (1984) (abstract available on DIALOG, file 5::Biosis Previews 1981-86) (ethanol alone dose-dependently induced nystagmus).
16. Oosterveld, Meineri & Paolucci, Quantitative Effect of Linear Acceleration on Positional Alcohol Nystagmus, 45 AEROSPACE MEDICINE, July 1974, at 695 (G-loading brings about PAN even when subject has not ingested alcohol; however when subjects ingested alcohol, no PAN was found when subjects were in supine position, even with G-force at 3).
17. Penttila, Lehti & Lonnqvist, Nystagmus and Disturbances in Psychomotor Functions Induced by Psychotropic Drug Therapy, 1974 PSYCHIAT. FENN. 315 (abstract available on DIALOG, file 173:Embase 1975-79) (psychotropic drugs induce nystagmus).
18. Savolainen, Riihimaki, Vaheri & Linnoila, Effects of Xylene and Alcohol on Vestibular and Visual Functions in Man, SCAND. J. WORK ENVIRON. HEALTH 94 (Sweden 1980) (abstract available on DIALOG, file 172:Embase 1980-81 on file 5:Biosis Previews 1981-86) (the effects of alcohol on vestibular functions (e.g. positional nystagmus) were dose-dependent).
19. Seelmeyer, Nystagmus, A Valid DUI Test, LAW AND ORDER, July 1985, at 29 (horizontal gaze nystagmus test is used in "at least one law enforcement agency in each of the 50 states" and is "a legitimate method of establishing probable cause." Id.).
20. Tharp, Moskowitz & Burns, Circadian Effects on Alcohol Gaze Nystagmus (paper presented at 20th annual meeting of Society for Psychophysiological Research), abstract in 18

PSYCHOPHYSIOLOGY, March 1981 (highly significant correlation between angle of onset of AGN and BAC).

21. Umeda & Sakata, Alcohol and the Oculomotor System, 87 ANNALS OF OTOTOLOGY, RHINOLOGY & LARYNGOLOGY, May-June 1978, at 392 (in volunteers whose "caloric eye tracking pattern" (CETP) was normal before alcohol intake, influence of alcohol on oculomotor system appeared consistently in the following order: (1) abnormality of CETP, (2) positional alcohol nystagmus, (3) abnormality of eye tracking pattern, (4) alcohol gaze nystagmus).

22. Zyo, Medico-Legal and Psychiatric Studies on the Alcoholic Intoxicated Offender, 30 JAPANESE J. OF LEGAL MED., No. 3, 1976, at 169 (abstract available on DIALOG, file 21:National Criminal Justice Reference Service 1972-85) (recommends use of nystagmus test to determine somatic and mental symptoms of alcohol intoxication as well as BAC).

2. Are HGN Test Results Admissible Evidence?

Our holding that when administered by properly trained and certified police officers the HGN test is sufficiently reliable to be used to establish probable cause does not mean the test results may be admitted in evidence on the question of guilt or innocence. In Fuenning v. Superior Court, *supra*, we held that if a defendant challenges the intoxilyzer test results, the conduct that provided probable cause becomes relevant to the question of the accuracy of the chemical analysis which allegedly showed that the driver's BAC exceeded .10 percent, and thus may be admissible. We stated such admissible testimony might include "the manner in which he was driving [and] the manner in which he performed the field sobriety tests...." 139 Ariz. at 599, 680 P.2d at 130.

Unless the results of the HGN test are also admissible under our rules of evidence, when a driver challenges the chemical test results, the state may find itself in the position of being able to support the arrest with the results of the traditional field sobriety tests, but not the more probative HGN test results. This result is not unique.

Much evidence of real and substantial probative value goes out on considerations irrelevant to its probative weight but relevant to possible misunderstanding or misuse by the jury.

Brinegar v. United States, 338 U.S. at 173, 69 S. Ct. at 1309.

The "Frve Rule"

The HGN test is a different type of test from balancing on one leg or walking a straight line because it rests almost entirely upon an assertion of scientific legitimacy rather than a basis of common knowledge. Different rules therefore apply to determine its admissibility. See State ex rel. Collins v. Superior Court, 132 Ariz. 180, 195, 644 P.2d 1266, 1281 (1982); cf. State v. Roscoe, 145 Ariz. 212, 700 P.2d 1312 (1984). It is to this question of HGN's admissibility that we now address ourselves.

Rules of evidence are aimed at preventing jury confusion, prejudice and undue consumption of time and trial resources. State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981); Rule 403, Ariz.R.Evid., 17A A.R.S. Scientific evidence is a source of particular judicial caution. Because "science" is often accepted in our society as synonymous with truth, there is a substantial risk that the jury may give undue weight to such evidence. M. UDALL & J. LIVERMORE, LAW OF EVIDENCE § 102 (2d ed. 1982). If a technique has an "enormous effect in resolving completely a matter in controversy," it must be demonstrably reliable before it is admissible. Id.

Before expert opinion evidence based on a novel scientific principle can be admitted, the rule of Frve v. United States, supra, requires that the theory relied on be in conformity with a generally accepted explanatory theory. See Collins, 132 Ariz. at 195, 644 P.2d at 1281. The purpose of this requirement is to assure the reliability of the testimony. Because HGN is a new

FILED
JUL 25 1985
CLERK COURT OF APPEALS
Division Two

IN THE COURT OF APPEALS
STATE OF ARIZONA
DIVISION TWO

THE STATE OF ARIZONA,)
)
) Petitioner,)
)
) v.)
)
) THE SUPERIOR COURT OF THE STATE)
) OF ARIZONA, in and for the)
) COUNTY OF COCHISE, and the HON.)
) JAMES L. RILEY, DIVISION III,)
)
) Respondent,)
)
) and)
)
) FREDRICK ANDREW BLAKE,)
)
) Real Party in Interest.)

2 CA-SA 0254
DEPARTMENT A

O P I N I O N

SPECIAL ACTION PROCEEDINGS
Relief Granted

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H O W A R D, Judge.

This special action concerns the use by law enforcement personnel of a field sobriety test called horizontal gaze nystagmus (HGN). Since considerable public funds are about to be spent by the Governor's Office of Highway Safety, Arizona Department of Transportation, for the training of law enforcement officers throughout the state in the use of the HGN test, special action is appropriate. We hold that the trial court erred in deciding that the HGN test could not be used to determine probable cause and in dismissing the prosecution.

In the early morning hours of March 18, 1985, the real party in interest, Fredrick Blake, was driving an automobile on State Route 92 south of Sierra Vista, Arizona. He was stopped by Officer Hohn of the Arizona Highway Patrol who suspected him of driving while under the influence of alcohol. The officer had Blake perform a series of field sobriety tests and he also had Blake perform the HGN test, which involves requesting a person at the time of the stop to concentrate on an object (usually a pen) held by the officer slightly above the driver's eye level. The

object is held initially directly ahead of the driver's eyeball while it is centered and looking straight forward in relation to the head. The object is then moved toward the outside of the driver's field of vision, toward the ear and away from the nose. The officer then observes the onset of an involuntary oscillation of the eyeball and measures the angle of the onset of this oscillation in relation to the center point. The officer then calculates the blood alcohol level based upon the angle of the onset of the oscillation.

Blake's performance of the standard field sobriety test was fair, but when the HGN test was administered, the officer had no doubt that Blake had a blood alcohol content (BAC) of more than .10 per cent. In fact, he estimated that from the result of the HGN test Blake had a BAC of .17 per cent. Blake was arrested and an intoxilyzer was subsequently administered which showed that Blake had a BAC of .163 per cent. Blake was charged, inter alia, with driving while under the influence of alcohol in violation of A.R.S. §28-692(B), which makes it unlawful to drive with .10 per cent or more of alcohol in the blood.

Blake made two motions in the trial court: to dismiss the prosecution for lack of probable cause to arrest and in limine to preclude the admission of the HGN test and its results at trial. At the hearing on the motions, Officer Hohn stated that without utilizing the results of the HGN, he did not believe that he had probable cause to arrest Blake.

The trial court concluded that the HGN test failed to meet the test of reliability under *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), and thus could not be used to form probable cause. The court then dismissed the prosecution.

The trial court was incorrect in deciding that that the HGN test had to meet the Frye test before it could be used to determine probable cause to arrest. The Frye test, as adopted in Arizona, is as follows: "To be accepted by a court as fact, a scientific principle must have gained general acceptance in the particular field in which it belongs." *Scales v. City Court*, 122 Ariz. 231, 594 P.2d 97 (1979). See *State v. Roscoe*, ___ Ariz. ___, ___ P.2d ___ (No. 5831, filed December 28, 1984). The Frye test governs the admissibility of scientific evidence at trial. However, such evidence need not meet the Frye test in order to be utilized to determine probable cause to arrest. Probable cause to arrest exists where the arresting officer has reasonably trustworthy information sufficient to lead a reasonable person to believe that an offense has been committed and that the person to be arrested committed it. *State v. Nelson*, 129 Ariz. 582, 633 P.2d 391 (1981). Only the probability and not a prima facie showing of criminal activity is the standard for probable cause to arrest. *State v. Emery*, 131 Ariz. 493, 642 P.2d 838 (1982). When assessing whether probable cause exists, police officers are entitled to rely upon information not admissible at trial. *Brinegar v. United States*, 338 U.S. 160, 69 S.Ct. 1302, 93 L.Ed.

1897 (1949) (in a prosecution for importing intoxicating liquor into Oklahoma from Missouri in violation of the federal statutes, testimony by an investigator of the Alcohol Tax Unit that he had arrested Brinegar several months earlier for illegal transportation of liquor and that the resulting indictment was pending in another court at the time of the trial of this case was admissible at a hearing on the motion to suppress where the issue was not guilt but probable cause). In Brinegar, the court remarked:

"The court's rulings, one admitting, the other excluding the identical testimony, were neither inconsistent nor improper.. They illustrate the difference in standards and latitude allowed in passing upon the distinct issues of probable cause and guilt. Guilt in a criminal case must be proved beyond a reasonable doubt and by evidence confined to that which long experience in the common-law tradition, to some extent embodied in the Constitution, has crystallized into rules of evidence consistent with that standard. These rules are historically grounded rights of our system, developed to safeguard men from dubious and unjust convictions, with resulting forfeitures of life, liberty and property.

However, if those standards were to be made applicable in determining probable cause for an arrest or for search and seizure, more especially in cases such as this involving moving vehicles used in the commission of crime, few indeed would be the situations in which an officer, charged with protecting the public interest by enforcing the law, could take effective action toward that end. Those standards have seldom been so applied." 69 S.Ct. at 1310.

Four witnesses testified for the state on the motion to dismiss and motion in limine. Marcelline Burns has a Ph.D. from the University of California at Irvine and is a research psychologist. She is also the director of the Southern California Research Institute. The Institute is a non-profit organization incorporated by a group of researchers from UCLA, including Dr. Burns. In 1975 the United States Department of Transportation, the National Highway Safety Administration, awarded a research contract to the Southern California Research Institute to investigate and to develop the best possible field sobriety tests. Dr. Burns was the project director and conducted the research. As a result of the research the Institute recommended a three-test battery, one of which was the HGN test. Their research found a correlation between blood alcohol content and HGN and they developed the following formula: Fifty degrees minus the angle of the gaze of the onset of eye oscillation equals the BAC. This formula was validated in the field as a result of 450 administrations of the test. They found that they were able to distinguish above and below .10 per cent blood alcohol at an accuracy level of 80 per cent. Researchers in Finland had also been studying and using the HGN test and their results were the same as these of the Institute.

Based on the research done by the Institute, the National Highway Traffic Safety Administration has developed a training manual and training program on the HGN test and is now

training law enforcement officers nationwide on the use of the test. Dr. Burns has conducted training sessions in Arizona and California, teaching law enforcement officers to administer the HGN test. Dr. Burns testified that the HGN test had been accepted as valid by the National Highway Traffic Safety Administration, the Finnish researchers, the researchers at her institute, numerous state agencies such as the California Highway Patrol, The Arizona Highway Patrol, the Washington State Police, and by innumerable city agencies. There was no evidence introduced to show that the HGN test is not a valid test, or that it was not or had not been accepted by the particular field in which it belongs.

Also testifying for the state was Sergeant Richard Studdard, a police officer with the City of Los Angeles who is currently a supervisor in the enforcement of DWI cases. He first became involved with HGN in 1960 at the Los Angeles Police Academy where he was taught to use it for barbiturate intoxication. In 1971 the department was having major problems convicting individuals for driving under the influence of drugs and decided that it would standardize a field sobriety test battery which was applicable to both alcohol and drugs. Their work in the field actually administering the HGN test showed a direct correlation between the percentage of alcohol and the amount of HGN, but it was not until 1977, when the Southern California Institute and Dr. Burns became involved, that their

findings were corroborated. Sergeant Studdard actually participated in quite a few studies at the institute and was involved in double blind studies in which individuals were given alcohol and/or a placebo and were then examined by using the HGN test. The results were dramatic. The results of the HGN tests were extremely close to the actual blood alcohol level.

Sergeant Studdard also participated in programs at the National Highway Safety Administration and is now its consultant on field sobriety testing and HGN. He has actually trained officers in the Washington D.C. area and has been involved in a constant study of the HGN tests. He testified that he found that the accuracy rate of the HGN test in determining blood alcohol is between 80 and 90 per cent. According to Sgt. Studdard, the 10 to 20 per cent "inaccuracy" in determining the blood alcohol content is caused by the fact that drugs such as barbiturates or valium cause the same type of result on the HGN test as does alcohol. He also testified that the HGN test was especially useful in those cases where the usual field sobriety tests, such as walking a straight line and the finger-to-nose test, did not clearly disclose that the driver was under the influence. In the past, those drivers were not arrested, although they actually may have had more than .10 per cent of alcohol in their blood. Now, with the HGN test, officers are able to detect those individuals and keep them off the highways.

Sergeant Jeffrey Raynor is a sergeant with the Arizona

Highway Patrol. He currently administers the HGN training program for the state. The Arizona Law Enforcement Officers Advisory Council (ALEOAC) is a statewide police certifying agency for police officer training. Sgt. Raynor established the training program for ALEOAC. Sgt. Raynor also testified to the benefits of administering the HGN test along with the usual field sobriety tests. His experience and the experience of other law enforcement officers has shown that an experienced drinker could have .13 or .14 BAC and still might be able to perform the traditional field tests very well, thus evading arrest.

The program in the state of Arizona for the use of HGN is included in a 20-hour course of instruction which also includes other standardized field tests. The officers are given a chance to practice the HGN test on suspects who have been dosed with various amounts of alcohol. In order to be certified by ALEOAC to administer the test, they first have to perform 35 practice applications of HGN. They then take an examination where there are live drinking suspects. They have five suspects on which they perform the test and they are required to determine correctly four out of five times, within .02 per cent, the BAC of the suspect. A police officer is also required to use the HGN test regularly and he is evaluated by a supervisor or in the field by Sgt. Raynor in his HGN training to make sure that the officer maintains his proficiency. Officer Robert Hohn had been certified as an HGN specialist. All the testimony at the hearing

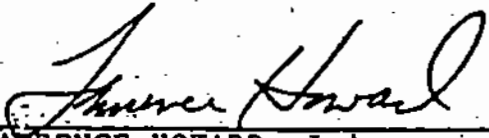
made clear that the efficacy of the HGN test depended upon the expertise of the officer who administered the test and that his education and on-the-job training were extremely important.

We conclude that the record shows not only that the HGN is sufficiently reliable to provide probable cause for arrest, but that with the proper foundation as to the expertise of the officer administering it, testimony concerning the administration of the test and its results is admissible at trial. The record shows that the HGN test has gained general acceptance in the field in which it belongs.

However, we wish to make clear that, on the record before us, we are unable to rule that the results of the HGN test administered to Blake would be admissible at trial. The record shows only that Officer Hohn was certified. This means that all he had to do was to be correct four out of five times in passing the exam. Considering the necessity of expertise on the part of the officer administering the test, and the importance of his continually working with the test in the field, we are unable to say that a sufficient foundation for admissibility has been laid. We do note, however, that Officer Hohn kept a log of the times the test was administered. This log would be useful if it demonstrated that Officer Hohn was as proficient in the field as he was on the examination.

The order dismissing the case is vacated and set aside and the case is remanded for further proceedings consistent with

this opinion.

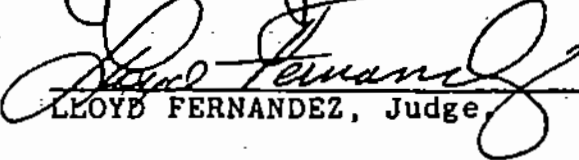


LAWRENCE HOWARD, Judge.

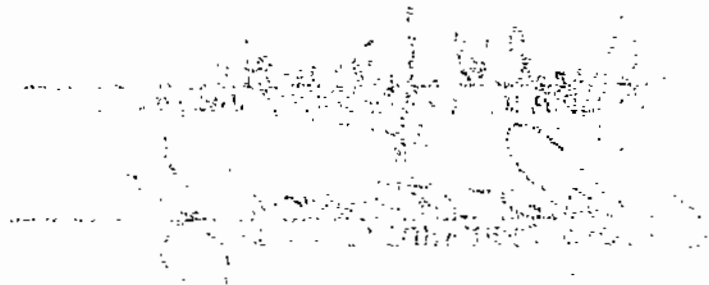
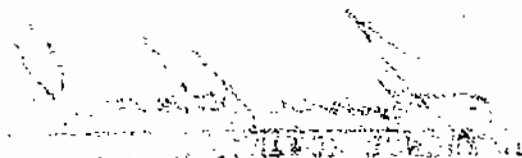
CONCURRING:



JOSEPH M. LIERNORE, Judge.



LLOYD FERNANDEZ, Judge.





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HORIZONTAL GAZE NYSTAGMUS - TRAFFIC OFFENSES - DUI - EXPERTS - TEST

State v. Supr.Ct., Blake, Real Party in Interest, 2 CA-SA
0254, Dept. A, July 25, 1985
IMPORTANT DUI CASE; ALLOWS HORIZONTAL GAZE NYSTAGMUS

FACTS: After the defendant was stopped for DUI, he was given field sobriety tests on which he did fair. The officer also administered a Horizontal Gaze Nystagmus (HGN) test and estimated that defendant's blood alcohol content was .17%. The intoxilizer showed a .163% reading. At the motion to suppress, the state presented testimony from the UCLA project director which originally researched the HGN test. The researchers found that they could determine whether a person was above or below a .10% blood alcohol level 80% of the time. Finnish researchers had reached the same results. The project director testified that HGN had been accepted by various researchers, various police agencies and the National Highway Traffic Safety Administration. The police officer who helped develop and standardize HGN testified about his field experience with HGN and his work in the research on HGN. The officer testified that HGN was particularly useful in detecting drivers who had over .10% alcohol in their blood who would otherwise pass the field sobriety tests. The Arizona officer who administers HGN training testified that experienced drinkers with .13 or .14 reading could pass the other field sobriety tests and evade arrest. He testified that to be certified for HGN the officers have to be attend and 20-hour course of instruction, have to perform 35 practice tests and then have to pass an exam where they must determine the blood alcohol level of suspects within .02% four out of five times. The training officer also testified that the officer must continue to use the test regularly in the field and should be evaluated to make sure the officer maintains his proficiency. The arresting officer testified that he was certified as an HGN specialist. The arresting officer testified without HGN results, he did not think he had probable cause to arrest the defendant. The trial court ruled that the HGN test was not reliable under Frye v. United States, 293 F.2d 1013 (D.C. Cir. 1923) and thus could not be

used as part of probable cause. Accordingly, the court dismissed the prosecution. The STATE brought this SPECIAL ACTION.

ISSUE: Did the trial court err in excluding the HGN evidence?

RULING: Yes. "We conclude that the record shows not only that the HGN is sufficiently reliable to provide probable cause for arrest, but that with the proper foundation as to the expertise of the officer administering it, testimony concerning the administration of the test and its results is admissible at trial. The record shows that the HGN test has gained general acceptance in the field in which it belongs." The court went on to say that they were unable to rule on whether the results of this particular HGN test would be admissible because the only evidence about the officer's proficiency was his testimony that he was certified. The court of appeals noted that the officer kept a log of when he administered the test and said, "This log would be useful if it demonstrated that [the arresting officer] was as proficient in the field as he was on the examination." The order of dismissal is reversed and the case is remanded for further proceedings.

ELECTRONIC EVIDENCE - JUVENILES - EXCLUSION - WITNESSES -
RULE 19 - CONFRONTATION - CROSS-EXAMINATION - ELECTRONIC
EVIDENCE - WITNESSES - COMPETENCE - JUVENILES - WEIGHT -
INCONSISTENCIES CONTRADICTIONS - SUFFICIENT EVIDENCE - SECOND
DEGREE MURDER - ARGUMENT - EVIDENCE - A.R.S. § 13-1104 -
A.R.S. § 8-241(A)(2)

In The Matter of the Appeal in Pinal County Juvenile Action Nos. J-1123 and J-1124, 2 CA-CIV 5319, Dept. B, July 24, 1985

FACTS: The juveniles were believed to have abused a 3 year old, causing her death. At the hearing the judge established that the juveniles had threatened the witness/victim's brother if he told what they had done to the victim. The court found the six-year-old witness/brother was competent to testify and was afraid to testify because the juveniles had threatened him. The juveniles were put in an adjacent room and they watched the testimony "on closed-circuit television." The juveniles were adjudicated delinquent on petitions alleging SECOND DEGREE MURDER.

ISSUE 1: Did this procedure violate Juvenile Court Rule 19? RULING: No, the juveniles were not "excluded" from the courtroom because they could see and hear what was happening on the television, counsel was given notice that counsel could confer with their clients whenever they wanted and frequent breaks were taken for this purpose.

SESSION IV

**OVERVIEW OF DETECTION
NOTE TAKING AND TESTIMONY**

1950

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LIBRARY

1950

SESSION IV

OVERVIEW OF DETECTION, NOTE TAKING AND TESTIMONY

Upon successfully completing this session, the participant will be able to:

- o Describe the three phases of detection.
- o Describe the tasks and key decision of each phase.
- o Discuss the uses of a standard note taking guide.
- o Discuss guidelines for effective testimony.

CONTENT SEGMENTS

- A. Three Phases of Detection.
- B. DWI Investigation Field Notes
- C. Courtroom Testimony

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Reading Assignments

THE STATE OF TEXAS, COUNTY OF DALLAS, ss. I, the undersigned, a Notary Public in and for said State and County, do hereby certify that the within and foregoing instrument is a true and correct copy of the original instrument filed for record in my office on this 10th day of May, 1900, at 10 o'clock in the forenoon of said day, and that the same is a true and correct copy of the original instrument filed for record in my office on this 10th day of May, 1900, at 10 o'clock in the forenoon of said day, and that the same is a true and correct copy of the original instrument filed for record in my office on this 10th day of May, 1900, at 10 o'clock in the forenoon of said day.

Notary Public in and for the State of Texas,
 My Commission Expires on the 10th day of May, 1901.
 My Office is at Dallas, Texas.

Witness my hand and seal of office at Dallas, Texas, this 10th day of May, 1900.

DWI DETECTION

Detection is both the most difficult task in the DWI enforcement effort, and the most important. If officers fail to detect DWI violators, the DWI countermeasures program ultimately will fail. If officers do not detect and arrest DWI violators, the prosecutors can not prosecute them, the courts and driver licensing officials can not impose sanctions on them, and treatment and rehabilitation programs will go unused.

The term DWI detection has been used in many different ways. Consequently it does not mean the same thing to all police officers. For the purposes of this training, DWI detection is defined as:

**THE ENTIRE PROCESS OF IDENTIFYING AND GATHERING EVIDENCE
TO DETERMINE WHETHER OR NOT A SUSPECT SHOULD BE ARRESTED
FOR DWI VIOLATION.**

The detection process begins when the police officer first suspects that a DWI violation may be occurring and ends when the officer decides that there is or there is not sufficient probable cause to arrest the suspect for DWI.

Your attention may be called to a particular vehicle or individual for a variety of reasons. The precipitating event may be a loud noise; a cloud of dust; an obvious moving violation; behavior that is unusual, but not necessarily illegal; an equipment defect; or almost anything else. The initial "spark" of detection may carry with it an immediate, strong suspicion that the driver is under the influence; or only a slight, ill-formed suspicion; or even no suspicion at all at that time. In any case, it sets in motion a process wherein you focus on a particular individual and have the opportunity to observe that individual and to accumulate additional evidence.

The detection process end when you decide either to arrest or not to arrest the individual for DWI. That decision, ideally, is based on all of the evidence that has come to light since your attention first was drawn to the suspect. Effective DWI enforcers do not simply leap immediately to the arrest/no arrest decision. Rather, they proceed carefully through a series of intermediate steps, each of which helps to identify the collect evidence.

DETECTION PHASES

The typical DWI contact involves three separate and distinct phases:

Phase One: Vehicle in motion

Phase Two: Personal contact

Phase Three: Prearrest screening

(See Exhibit 4-1.)

In Phase One, you usually observe the driver operating the vehicle. In Phase Two, after you have stopped the vehicle, there usually is an opportunity to observe and speak with the driver face-to-face. In Phase Three, you usually have an opportunity to administer some formal, structured field sobriety tests to the driver to evaluate the degree of impairment. You may administer a preliminary breath test in addition to field sobriety tests to verify that alcohol is the cause of the impairment.

The DWI detection process does not always include all three phases. Sometimes there are DWI detection contacts in which Phase One is absent; that is, cases in which you have no opportunity to observe the vehicle in motion. This may occur at the scene of an accident to which you have been called, at a roadblock, or when you have responded to a request for motorist assistance. Sometimes there are DWI contacts in which Phase Three never occurs; that is cases in which you administer no formal tests to the driver. This may occur when the driver is grossly intoxicated or badly injured, or refuses to submit to tests.

DWI DETECTION PHASES

1. Vehicle in Motion



2. Personal Contact



3. Pre-Arrest Screening

MAJOR TASKS AND DECISIONS

Each detection phase usually involves two major tasks and one major decision (See Exhibit 4-2.)

In Phase One: Your first task is to observe the vehicle in operation. Based on this observation, you must decide whether there is sufficient cause to command the driver to stop. Your second task is to observe the stopping sequence.

In Phase Two: Your first task is to observe and interview the driver face to face. Based on this observation, you must decide whether there is sufficient cause to instruct the driver to step from the vehicle for further investigation. Your second task is to observe the driver's exit and walk from the vehicle.

In Phase Three: Your first task is to administer structured, formal psychophysical tests. Based on these tests, you must decide whether there is sufficient probable cause to arrest the driver for DWI. Your second task is then to arrange for (or administer) a Preliminary Breath Test.

Each of the major decisions can have any one of three different outcomes:

1. Yes - Do it Now
2. Wait - Look for Additional Evidence
3. No - Don't Do It.

**EXHIBIT
4-2**

DWI DETECTION PHASES

**PHASE ONE:
Vehicle In Motion**

**INITIAL OBSERVATION
OF VEHICLE IN
OPERATION**



**SHOULD I
STOP THE DRIVER?**

**OBSERVATION OF THE
STOPPING SEQUENCE**

**PHASE TWO:
Personal Contact**

**FACE-TO-FACE
OBSERVATION AND
INTERVIEW OF DRIVER.**



**SHOULD THE
DRIVER EXIT?**

**OBSERVATION OF THE
EXIT AND WALK**

**PHASE THREE:
Prearrest
Screening**

**PSYCHOPHYSICAL
(FIELD) SOBRIETY TESTING**



**IS THERE PROBABLE CAUSE TO
ARREST THE SUSPECT FOR DWI?**

**PRELIMINARY
BREATH TESTING**

Consider the following examples.

1. Yes - Do It Now

Phase One: Yes, there are reasonable grounds to stop the driver.

Phase Two: Yes, there is enough reason to suspect alcohol/drug impairment to justify getting the driver out of the vehicle for further investigation.

Phase Three: Yes, there is probable cause to arrest the driver for DWI right now.

2. Wait - Look for Additional Evidence

Phase One: Don't stop the driver yet; keep following and observing the driver a bit longer.

Phase Two: Don't get the driver out of the car yet; keep talking to and observing the driver a bit longer. (This option may be limited if the officer's personal safety is at risk.)

Phase Three: Don't arrest the driver yet; administer another field sobriety test before deciding.

3. Don't Do It:

Phase One: No, there are no grounds for stopping that driver.

Phase Two: No, there isn't enough evidence of DWI to justify administering field sobriety tests.

Phase Three: No, there is not sufficient probable cause to believe this driver has committed DWI.

OFFICER RESPONSIBILITY

At each phase of detection, you must determine whether there is sufficient evidence to provide the "reasonable suspicion" necessary to proceed to the next step in the detection process. It is always your duty to carry out whatever tasks are appropriate, to make sure that all relevant evidence of DWI is brought to light. (See Exhibit 4-3).

The most successful DWI detectors are those officers who:

- o know what to look and listen for;
- o have the skills to ask the right kinds of questions;
- o choose and use the right kinds of tests;
- o make the right kinds of observations; and
- o are motivated to apply their knowledge and skill whenever they contact someone who may be under the influence.

Officers like these are likely to make more arrests and to document the clear, convincing evidence needed to secure convictions.

DWI DETECTION

Answers to questions like these can aid you in DWI detection.

Phase One:

- o What is the driver doing?**
- o Do I have grounds to stop the driver?**
- o How does the driver respond to my signal to stop?**
- o How does the driver handle the vehicle during the stopping sequence?**

Phase Two:

- o When I approach the vehicle, what do I see?**
- o When I talk with the driver, what do I hear, see and smell?**
- o How does the driver respond to my questions?**
- o Should I instruct the driver to exit the vehicle?**
- o How does the driver exit?**
- o When the driver walks toward the side of the road, what do I see?**

Phase Three:

- o Should I administer field sobriety tests to the driver?**
- o How does the driver perform those tests?**
- o What exactly does the driver do wrong when performing the tests?**
- o Do I have probable cause to arrest for DWI?**
- o Should I administer a preliminary breath test?**
- o What are the results of the preliminary breath test?**
- o Is the impairment caused by alcohol, or drugs, or both?**

NOTE TAKING AND TESTIMONY

INTRODUCTION

A basic skill needed for DWI enforcement is the ability graphically to describe your observations. Just as detection is the process of collecting evidence, description largely is the process of conveying evidence. Successful description demands the ability to convey evidence clearly and convincingly. Your challenge is to communicate evidence to people who weren't there to see, hear and smell the evidence themselves. Your tools are the words that make up your written report and verbal testimony. You must communicate with the supervisor, the prosecutor, the judge, the jury and even with the defense attorney. You are trying to "paint a word picture" for those people, to develop through words a sharp mental image that allows them to "see" what you saw; "hear" what you heard; and "smell" what you smelled.

Officers with the knowledge, skills and motivation to select the most appropriate words for both written reports and courtroom testimony will communicate clearly and convincingly, making them most successful in DWI prosecution. (See Exhibit 5-1.)

DWI INVESTIGATION FIELD NOTES

One of the most critical tasks in the DWI enforcement process is the recognition and retention of facts and cues that establish probable cause to stop, investigate and subsequently arrest persons suspected of driving or operating a vehicle while under the influence of alcohol, drugs or both. The evidence gathered during the detection process must establish the elements of the violation, and must be documented to support successful prosecution of the violator. This evidence is largely sensory (sight, smell, hearing) in nature, and therefore is extremely short-lived.

USING CLEAR AND CONVINCING LANGUAGE

Field notes are only as good as the information they contain. Reports must be clearly written and events accurately described if the reports are to have evidentiary value. One persistent problem with DWI incident reports is the use of vague language to describe conditions, events and statements. When vague language is used, reports provide a confused picture of what happened. When clear language is used, on the other hand, reports provide an accurate picture of what happened. Clear and convincing field notes provide strong evidence in court.

Consider the following examples.

Vague Language

- o Made an illegal left turn on Jefferson.
- o Drove erratically.
- o Driver appeared drunk.
- o Vehicle stopped in unusual fashion.
- o Vehicle crossed the center line.

Clear Language

- o From Main, turned left (northbound) on Jefferson, which is one way southbound.
- o Weaving from side to side. Crossed center line twice and drove on shoulder three times.
- o Driver's eyes bloodshot; gaze fixed; hands shaking. Strong odor of alcoholic beverage on driver's breath.
- o Vehicle struck, climbed curb; stopped on sidewalk.
- o Vehicle drifted completely into the opposing traffic lane.

You must be able to recognize and act on the facts and circumstances with which you are confronted. But you also must be able to recall those observations, and describe them clearly and convincingly, to secure a conviction. You may be inundated with evidence of DWI: with sights, sounds, smells, and so on. You recognize this evidence, sometimes subconsciously, and on this evidence based your decisions to stop, to investigate and ultimately to arrest.

Since evidence of a DWI violation is short-lived, you need a system and tools for recording field notes at scenes of DWI investigations. Most officers make hand written field notes. Technological advances have made it possible to use audio tape recorders and video tape recorders in the field, and they provide an excellent means of documenting this short-lived evidence. However, recorders are not always available. The vast majority of officers must rely on field notes they take themselves, by hand.

One way to improve the effectiveness of your hand written field notes is to use a structures note taking guide. The guide makes it easy to record brief "notes" on each step on the detection process and ensures that vital evidence is documented. The field notes provide the information necessary for completion of required DWI report forms and assist you in preparing a written account of the incident. The field notes will also be useful if you are required to provide oral testimony, since they can be used to refresh your memory.

A model note taking guide is provided for your use. It is described briefly below. Details are provided in subsequent units.

NOTE TAKING GUIDE

Remember that you must document those actions which gave you reasonable suspicion or probable cause to justify your further investigation of a suspected DWI incident.

Section I provides space to record basic information describing the suspect, the vehicle, the location, and the date and time the incident occurred.

Section II provides space to record brief descriptions of the vehicle in motion (Detection Phase One), including initial observation of the vehicle in operation, and observation of the stopping sequence.

Section III provides space to record brief descriptions of the personal contact with the suspect (Detection Phase Two), including observation of the driver, statements or responses made by the driver or passengers, the results of any pre-exit sobriety tests*, observation of the driver exiting the vehicle, and any odors that may be present.

Section IV provides space to record the results of all field sobriety tests that were administered, and the results of the preliminary breath test (PBT) if such a test was given.

Section V provides space to record general observations, such as the suspect's manner of speech, attitude, clothing, etc. Any physical evidence collected should also be noted in this section.

Since this is a note taking guide and space is limited, you will have to develop your own "shorthand" system. Your notes should be as descriptive as possible and should create "mental pictures" of the facts, circumstances or event being described. You will use the notes to refresh your memory when you write the arrest report and testify in court.

NOTE: Field notes may be subpoenaed as evidence in court. It is important that any "shorthand" system you use be describable, useable, complete and consistent.

* Pre-exit sobriety tests are simple techniques that officers can use to obtain an initial assessment of a driver's impairment while the driver is still seated inside the vehicle or when standing at roadside. Pre-exit tests consist of carefully chosen questions, alphabet and number recitations, and simple dexterity tests involving the fingers and hands. These tests are covered in detail in Unit 7.

COURTROOM TESTIMONY

Although only a minority of DWI cases actually come to trial, the arresting officer must be fully prepared to testify in court on any case. Testimonial evidence in DWI cases usually is the only way to establish that the accused was in fact the driver of the vehicle alleged to have been involved in the DWI incident. Testimonial evidence also may be the primary and sometimes the only means of establishing that the accused was intoxicated, or under the influence of alcohol or drugs. Even when scientific evidence is available, supportive testimonial evidence will be required to permit introduction of that scientific evidence in court.

PREPARATION

Testimonial evidence must be clear and convincing to be effective. The first requirement for effective testimony is preparation. Testimony preparation begins at the time of the DWI incident. From the very beginning of the DWI contact, it is your responsibility to:

- o recognize significant evidence;
- o compile complete, accurate Field Notes;
- o prepare a complete and accurate incident report.

Testimony preparation continues prior to trial. Just before the trial, you should:

- o review Field Notes;
- o review case jacket/file;
- o mentally organize elements of offense, and the evidence available to prove each element;
- o mentally organize testimony to convey observations clearly and convincingly; and
- o discuss the case with the prosecutor.

IN COURT

In court, your testimony should be organized chronologically and should cover each phase of the DWI incident:

- o Initial observation of vehicle, the driver or both;
- o Reinforcing cues, maneuvers or actions, observed after signalling driver to stop, but before driver's vehicle came to a complete stop;
- o Cues, statements and other evidence obtained during your initial face-to-face contact with driver;
- o Pre-arrest screening sobriety tests administered to the driver;

- o The arrest itself; including procedures used to inform suspect of arrest, admonish suspect of rights, and so on;
- o Suspect's actions and statements subsequent to the arrest;
- o Observation and interrogation of suspect subsequent to the arrest;
- o The request for the chemical test; including the procedures used, admonition of rights and requirements, and so on;
- o The conduct and results of the chemical test, if you were also the testing officer.

SESSION IV

**OVERVIEW OF DETECTION
NOTE TAKING AND TESTIMONY**

SECRET

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

SESSION IV

OVERVIEW OF DETECTION, NOTE TAKING AND TESTIMONY

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- o Discuss guidelines for effective testimony.

CONTENT SEGMENTS

- A. Three Phases of Detection.
- B. DWI Investigation Field Notes
- C. Courtroom Testimony

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- o Instructor-Led Presentations
- o Reading Assignments

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The detection process begins when the police officer first suspects that a DWI violation may be occurring and ends when the officer decides that there is or there is not sufficient probable cause to arrest the suspect for DWI.

Your attention may be called to a particular vehicle or individual for a variety of reasons. The precipitating event may be a loud noise; a cloud of dust; an obvious moving violation; behavior that is unusual, but not necessarily illegal; an equipment defect; or almost anything else. The initial "spark" of detection may carry with it an immediate, strong suspicion that the driver is under the influence; or only a slight, ill-formed suspicion; or even no suspicion at all at that time. In any case, it sets in motion a process wherein you focus on a particular individual and have the opportunity to observe that individual and to accumulate additional evidence.

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DETECTION PHASES

The typical DWI contact involves three separate and distinct phases:

Phase One: Vehicle in motion

Phase Two: Personal contact

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(See Exhibit 4-1.)

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DWI DETECTION PHASES

1. Vehicle in Motion



2. Personal Contact



3. Pre-Arrest Screening

MAJOR TASKS AND DECISIONS

Each detection phase usually involves two major tasks and one major decision (See Exhibit 4-2.)

In Phase One: Your first task is to observe the vehicle in operation. Based on this observation, you must decide whether there is sufficient cause to command the driver to stop. Your second task is to observe the stopping sequence.

In Phase Two: Your first task is to observe and interview the driver face to face. Based on this observation, you must decide whether there is sufficient cause to instruct the driver to step from the vehicle for further investigation. Your second task is to observe the driver's exit and walk from the vehicle.

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Each of the major decisions can have any one of three different outcomes:

1. Yes - Do it Now
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**EXHIBIT
4-2**

DWI DETECTION PHASES

**PHASE ONE:
Vehicle In Motion**

**INITIAL OBSERVATION
OF VEHICLE IN
OPERATION**

?

**SHOULD I
STOP THE DRIVER?**

**OBSERVATION OF THE
STOPPING SEQUENCE**

**PHASE TWO:
Personal Contact**

**FACE-TO-FACE
OBSERVATION AND
INTERVIEW OF DRIVER.**

?

**SHOULD THE
DRIVER EXIT?**

**OBSERVATION OF THE
EXIT AND WALK**

**PHASE THREE:
Prearrest
Screening**

**PSYCHOPHYSICAL
(FIELD) SOBRIETY TESTING**

?

**IS THERE PROBABLE CAUSE TO
ARREST THE SUSPECT FOR DWI?**

**PRELIMINARY
BREATH TESTING**

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Phase Three: Yes, there is probable cause to arrest the driver for DWI right now.

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Phase Three: Don't arrest the driver yet; administer another field sobriety test before deciding.

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Phase Three: No, there is not sufficient probable cause to believe this driver has committed DWI.

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At each phase of detection, you must determine whether there is sufficient evidence to provide the "reasonable suspicion" necessary to proceed to the next step in the detection process. It is always your duty to carry out whatever tasks are appropriate, to make sure that all relevant evidence of DWI is brought to light. (See Exhibit 4-3).

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- o When I talk with the driver, what do I hear, see and smell?**
- o How does the driver respond to my questions?**
- o Should I instruct the driver to exit the vehicle?**
- o How does the driver exit?**
- o When the driver walks toward the side of the road, what do I see?**

Phase Three:

- o Should I administer field sobriety tests to the driver?**
- o How does the driver perform those tests?**
- o What exactly does the driver do wrong when performing the tests?**
- o Do I have probable cause to arrest for DWI?**
- o Should I administer a preliminary breath test?**
- o What are the results of the preliminary breath test?**
- o Is the impairment caused by alcohol, or drugs, or both?**

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- o From Main, turned left (northbound) on Jefferson, which is one way southbound.
- o Weaving from side to side. Crossed center line twice and drove on shoulder three times.
- o Driver's eyes bloodshot; gaze fixed; hands shaking. Strong odor of alcoholic beverage on driver's breath.
- o Vehicle struck, climbed curb; stopped on sidewalk.
- o Vehicle drifted completely into the opposing traffic lane.

You must be able to recognize and act on the facts and circumstances with which you are confronted. But you also must be able to recall those observations, and describe them clearly and convincingly, to secure a conviction. You may be inundated with evidence of DWI: with sights, sounds, smells, and so on. You recognize this evidence, sometimes subconsciously, and on this evidence based your decisions to stop, to investigate and ultimately to arrest.

Since evidence of a DWI violation is short-lived, you need a system and tools for recording field notes at scenes of DWI investigations. Most officers make hand written field notes. Technological advances have made it possible to use audio tape recorders and video tape recorders in the field, and they provide an excellent means of documenting this short-lived evidence. However, recorders are not always available. The vast majority of officers must rely on field notes they take themselves, by hand.

One way to improve the effectiveness of your hand written field notes is to use a structured note taking guide. The guide makes it easy to record brief "notes" on each step on the detection process and ensures that vital evidence is documented. The field notes provide the information necessary for completion of required DWI report forms and assist you in preparing a written account of the incident. The field notes will also be useful if you are required to provide oral testimony, since they can be used to refresh your memory.

A model note taking guide is provided for your use. It is described briefly below. Details are provided in subsequent units.

NOTE TAKING GUIDE

Remember that you must document those actions which gave you reasonable suspicion or probable cause to justify your further investigation of a suspected DWI incident.

Section I provides space to record basic information describing the suspect, the vehicle, the location, and the date and time the incident occurred.

Section II provides space to record brief descriptions of the vehicle in motion (Detection Phase One), including initial observation of the vehicle in operation, and observation of the stopping sequence.

Section III provides space to record brief descriptions of the personal contact with the suspect (Detection Phase Two), including observation of the driver, statements or responses made by the driver or passengers, the results of any pre-exit sobriety tests*, observation of the driver exiting the vehicle, and any odors that may be present.

Section IV provides space to record the results of all field sobriety tests that were administered, and the results of the preliminary breath test (PBT) if such a test was given.

Section V provides space to record general observations, such as the suspect's manner of speech, attitude, clothing, etc. Any physical evidence collected should also be noted in this section.

Since this is a note taking guide and space is limited, you will have to develop your own "shorthand" system. Your notes should be as descriptive as possible and should create "mental pictures" of the facts, circumstances or event being described. You will use the notes to refresh your memory when you write the arrest report and testify in court.

NOTE: Field notes may be subpoenaed as evidence in court. It is important that any "shorthand" system you use be describable, useable, complete and consistent.

* Pre-exit sobriety tests are simple techniques that officers can use to obtain an initial assessment of a driver's impairment while the driver is still seated inside the vehicle or when standing at roadside. Pre-exit tests consist of carefully chosen questions, alphabet and number recitations, and simple dexterity tests involving the fingers and hands. These tests are covered in detail in Unit 7.

COURTROOM TESTIMONY

Although only a minority of DWI cases actually come to trial, the arresting officer must be fully prepared to testify in court on any case. Testimonial evidence in DWI cases usually is the only way to establish that the accused was in fact the driver of the vehicle alleged to have been involved in the DWI incident. Testimonial evidence also may be the primary and sometimes the only means of establishing that the accused was intoxicated, or under the influence of alcohol or drugs. Even when scientific evidence is available, supportive testimonial evidence will be required to permit introduction of that scientific evidence in court.

PREPARATION

Testimonial evidence must be clear and convincing to be effective. The first requirement for effective testimony is preparation. Testimony preparation begins at the time of the DWI incident. From the very beginning of the DWI contact, it is your responsibility to:

- o recognize significant evidence;
- o compile complete, accurate Field Notes;
- o prepare a complete and accurate incident report.

Testimony preparation continues prior to trial. Just before the trial, you should:

- o review Field Notes;
- o review case jacket/file;
- o mentally organize elements of offense, and the evidence available to prove each element;
- o mentally organize testimony to convey observations clearly and convincingly; and
- o discuss the case with the prosecutor.

IN COURT

In court, your testimony should be organized chronologically and should cover each phase of the DWI incident:

- o Initial observation of vehicle, the driver or both;
- o Reinforcing cues, maneuvers or actions, observed after signalling driver to stop, but before driver's vehicle came to a complete stop;
- o Cues, statements and other evidence obtained during your initial face-to-face contact with driver;
- o Pre-arrest screening sobriety tests administered to the driver;

- o **The arrest itself; including procedures used to inform suspect of arrest, admonish suspect of rights, and so on;**
- o **Suspect's actions and statements subsequent to the arrest;**
- o **Observation and interrogation of suspect subsequent to the arrest;**
- o **The request for the chemical test; including the procedures used, admonition of rights and requirements, and so on;**
- o **The conduct and results of the chemical test, if you were also the testing officer.**

SESSION V

PHASE ONE: VEHICLE IN MOTION

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1925

1925

SESSION V

PHASE ONE: VEHICLE IN MOTION

Upon successfully completing this session, the participant will be able to:

- o Identify typical cues of Detection Phase One.
- o Describe the observed cues clearly and convincingly.

CONTENT SEGMENTS

- A. Overview: Tasks and Decision
- B. Initial Observations: Visual Cues Impaired Operation
- C. Recognition and Description of Initial Cues
- D. Typical Reinforcing Cues of the Stopping Sequence
- E. Recognition and Description of Initial and Reinforcing Cues

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Video Presentation
- o Instructor-Led Demonstrations
- o Participants' Presentations

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DWI DETECTION PHASE ONE: VEHICLE IN MOTION

Phase One Tasks and Decision

PHASE ONE:
Vehicle in Motion

INITIAL OBSERVATION
OF VEHICLE IN
OPERATION



SHOULD I
STOP THE DRIVER?

OBSERVATION OF THE
STOPPING SEQUENCE

Your first task in Phase One: Vehicle in Motion is to observe the vehicle in operation to note any initial cues of a possible DWI violation. At this point you must decide whether there is sufficient cause to stop the vehicle, either to conduct further investigation to determine if the suspect may be impaired, or for another traffic violation. You are not committed to arresting the suspect for DWI based on this initial observation, but rather should concentrate on gathering all relevant evidence that may suggest impairment. Your second task during phase one is to observe the manner in which the suspect responds to your signal to stop, and to note any additional evidence of a DWI violation.

The first task, observing the vehicle in motion, begins when you first notice the vehicle, driver or both. Your attention may be drawn to the vehicle by such things as:

- o a moving traffic violation;**
- o an equipment violation;**
- o an expired registration or inspection sticker;**
- o unusual driving actions, such as deviating within a lane or moving at slower than normal speed; or**
- o drinking or drugs in the vehicle.**

If this initial observation discloses vehicle maneuvers or human behaviors that may be associated with the influence of alcohol, you may develop an initial suspicion of DWI.

Based upon this initial observation of the vehicle in motion, you must decide whether there is probable cause to stop the vehicle. At this point you have three choices:

- o stop the vehicle;**
- o continue to observe the vehicle; or**
- o disregard the vehicle.**

2. INITIAL OBSERVATIONS: VISUAL CUES TO DWI

Drivers who are under the influence of alcohol, drugs or both frequently exhibit certain effects or symptoms of impairment. These include:

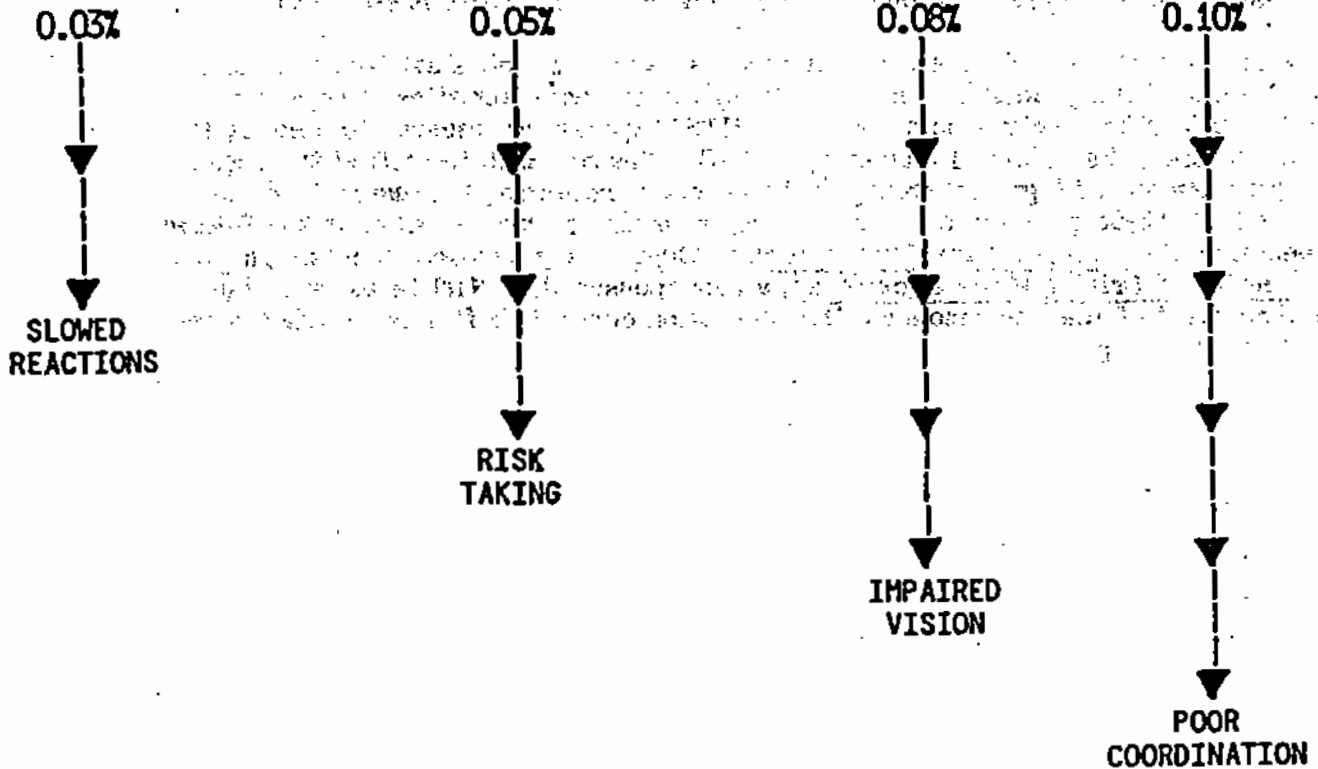
- o slowed reactions;
- o impaired judgment as evidenced by a willingness to take risks;
- o impaired vision; and
- o poor coordination

The next page presents common symptoms of alcohol influence. This unit focuses on alcohol impairment because research currently provides more information about the effects of alcohol on driving than it does about the effects of other drugs on driving. Remember that whether the driver is under the influence of alcohol or other drugs, the law enforcement detection process is the same, and the offense is still DWI.

The common effects of alcohol on the driver's mental and physical faculties lead to predictable driving violations and vehicle operating characteristics. The National Highway Traffic Safety Administration (NHTSA) sponsored research to identify the most common and reliable initial indicators of DWI. This research identified 20 cues, each with an associated high probability that the driver exhibiting the cue is under the influence. These cues and their associated probabilities are described in the following Special Section, Initial Visual DWI Detection Cues. They also are discussed in Visual Detection of Driving While Intoxicated, a film sponsored by NHTSA to assist law enforcement officers to recognize DWI detection cues. This film is included in the training videotape.

**COMMON SYMPTOMS OF
ALCOHOL INFLUENCE**

BLOOD ALCOHOL CONCENTRATION



INITIAL VISUAL DWI DETECTION CUES

Following are 20 cues which police officers may use to detect nighttime drunk drivers. The cues were developed from interviews with a variety of law enforcement specialists in DWI detection; from a detailed analysis of more than 1,000 DWI arrest reports from different geographical regions; and from a field study in which cues observed in more than 600 patrol stops were correlated with driver BAC levels. These cues represent the most systematically developed method available for visually predicting whether a vehicle operated at night is being driven by a DWI driver or a sober driver.

PROBABILITY VALUES

The number given after each visual cue is the probability that a driver exhibiting that cue has a BAC equal to or greater than 0.10 percent. For example, the 65 for the first cue, Turning With Wide Radius, means that chances are 65 out of 100 that a driver who turns with wide radius at night will have a BAC equal to or greater than 0.10 percent. The 50 for Drifting means that chances are 50 out of 100 (50:50) that a driver who is drifting at night will have a BAC equal to or greater than 0.10 percent.

Each value shown is based on seeing only one cue. However, multiple cues are often seen. When two or more cues are seen, add 10 to the highest value among the cues observed. For example:

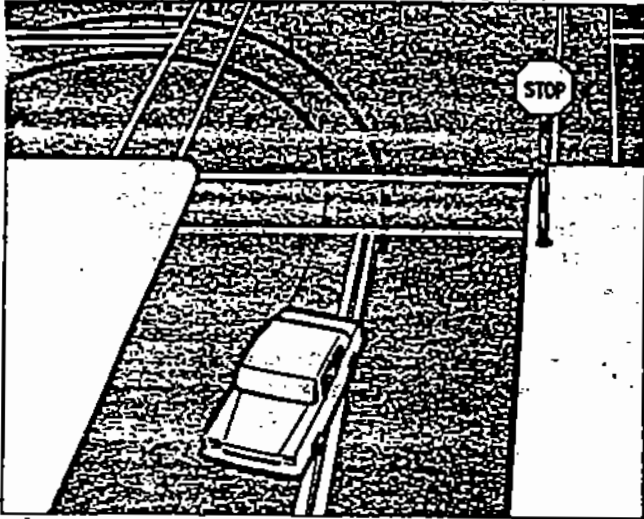
Turning with Wide Radius	65
and	
Drifting (50)	$\frac{10}{75}$

Chances are 75 out of 100 that a driver who exhibits both these cues will have a BAC equal to or greater than 0.10 percent.

Visual Cue Descriptions

65%
Turning With
Wide Radius

During a turn, the radius defined by the distance between the turning vehicle and the center of the turn is greater than normal.



60%
Almost
Striking Object
or Vehicle

The observed vehicle almost strikes a stationary object or another moving vehicle. Examples include: passing abnormally close to a sign, wall, building, or other object; passing abnormally close to another moving vehicle; and causing another vehicle to maneuver to avoid collision.

60%
Weaving

Weaving occurs when the vehicle alternately moves toward one side of the roadway and then the other, creating a zig-zag course. The pattern of lateral movement is relatively regular as one steering correction is closely followed by another.

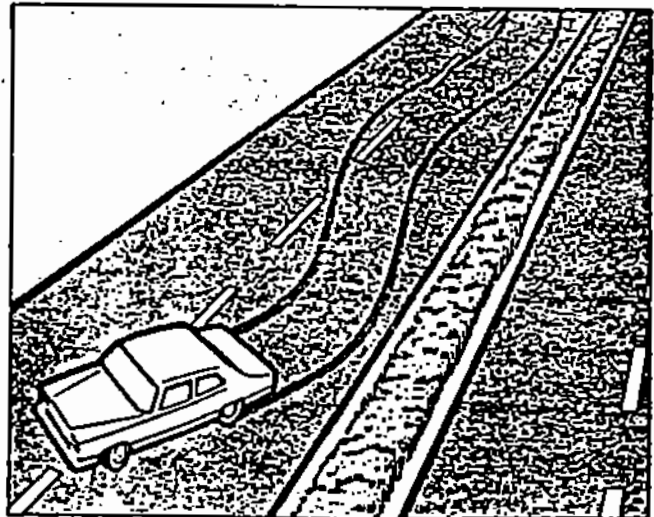
65%
Straddling
Center or Lane
Marker

The vehicle is moving straight ahead with the center or lane marker between the left-hand and right-hand wheels.

60%
Appearing to
be Drunk

This cue is actually one or more of a set of indicators related to the personal behavior or appearance of the driver. Examples of specific indicators might include:

- Eye fixation
- Tightly gripping the steering wheel
- Slouching in the seat
- Gesturing erratically or obscenely
- Face close to the windshield
- Drinking in the vehicle
- Driver's head protruding from vehicle

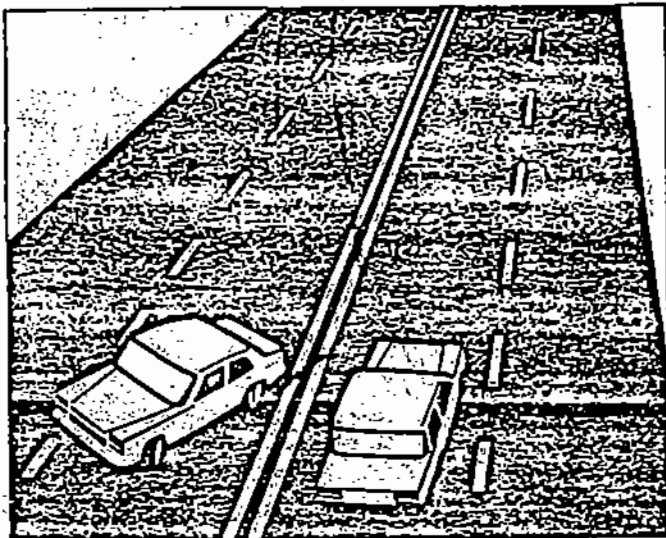


55%
Driving on
Other Than
Designated
Roadway

The vehicle is observed being driven on other than the roadway designated for traffic movement. Examples include driving: at the edge of the roadway, on the shoulder, off the roadway entirely, and straight through turn-only lanes or areas.

55%
Swerving

A swerve is an abrupt turn away from a generally straight course. Swerving might occur directly after a period of drifting when the driver discovers the approach of traffic in an oncoming lane or discovers that the vehicle is going off the road; swerving might also occur as an abrupt turn is executed to return the vehicle to the traffic lane. In the illustration below, a swerve was executed to return to a lane after a period of drifting toward opposing traffic.



50%
Speed
Slower Than
10 M.P.H.
Below Limit

The observed vehicle is being driven at a speed that is more than 10 MPH below the speed limit.

50%
Stopping
Without Cause
in Traffic Lane

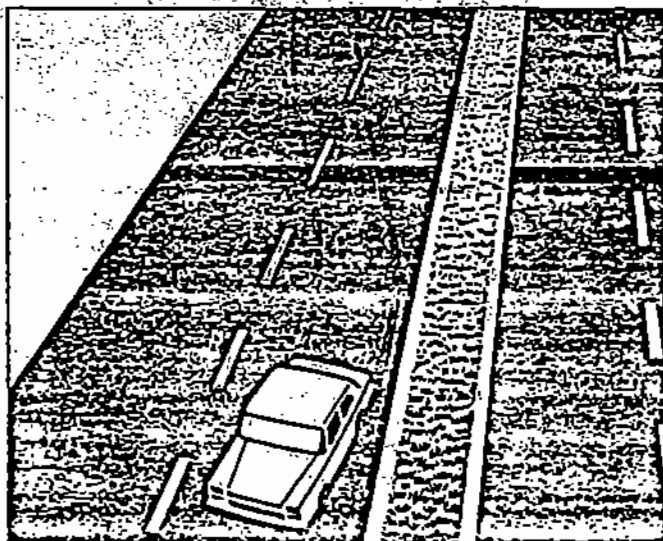
The critical element in this cue is that there is no observable justification for the vehicle to stop in the traffic lane; the stop is not caused by traffic conditions, traffic signals, an emergency situation, or related circumstances. Intoxicated drivers might stop in lane when their capability to interpret information and make decisions becomes severely impaired. As a consequence, stopping (without cause) in the traffic lane is likely to occur at intersections or other decision points.

50%
Following
Too Closely

The vehicle is observed following another vehicle while not maintaining the legal minimum separation.

50%
Drifting

Drifting is a straight-line movement of the vehicle at a slight angle to the roadway. As the driver approaches a marker or boundary (lane marker, center line, edge of the roadway), the direction of drift might change. As shown in the illustration, the vehicle drifts across the lane marker into another lane, then the driver makes a correction and the vehicle drifts back across the lane marker. Drifting might be observed within a single lane, across lanes, across the center line, onto the shoulder, and from lane to lane.



45%
Tires on
Center or
Lane Marker

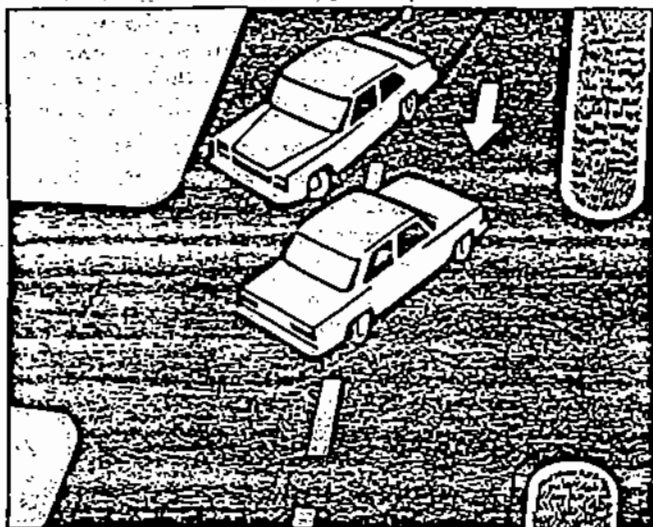
The left-hand set of tires of the observed vehicle is consistently on the center line, or either set of tires is consistently on the lane marker.

45%
Braking
Erratically

The driver of the observed vehicle breaks unnecessarily, maintains pressure on the brake pedal ("riding the brakes"), or brakes in an uneven or jerky manner.

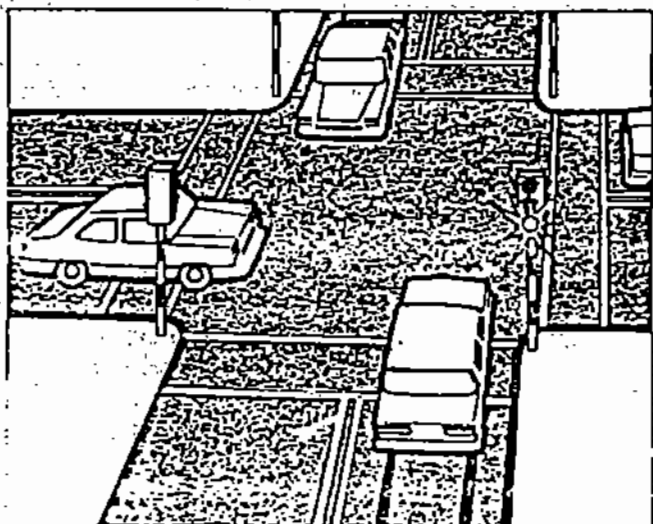
**45%
Driving Into
Opposing or
Crossing
Traffic**

The vehicle is observed heading into opposing or crossing traffic under one or more of the following circumstances: driving in the opposing lane; backing into traffic; failing to yield the right-of-way; driving the wrong way on a one-way street. The last circumstance is illustrated below.



**35%
Stopping
Inappropriately
(Other Than
in Traffic
Lane)**

The observed vehicle stops at an inappropriate location or under inappropriate conditions, other than in the traffic lane. Examples include stopping: in a prohibited zone; at a crosswalk; far short of an intersection; on a walkway; across lanes; for a green traffic signal; or for a flashing yellow traffic signal.

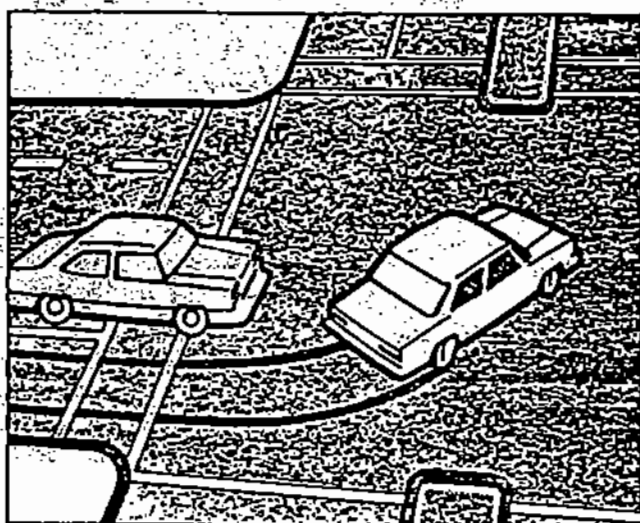


**40%
Slow Response
to Traffic
Signals**

The observed vehicle exhibits a longer than normal response to a change in traffic signal. For example, the driver remains stopped at the intersection for an abnormally long period of time after the traffic signal has turned green.

**35%
Turning
Abruptly or
Illegally**

The driver executes any turn that is abnormally abrupt or illegal. Specific examples include: turning with excessive speed; turning sharply from the wrong lane; making a U illegally; turning from outside a designated turn lane.



**30%
Accelerating
or Decelerating
Rapidly**

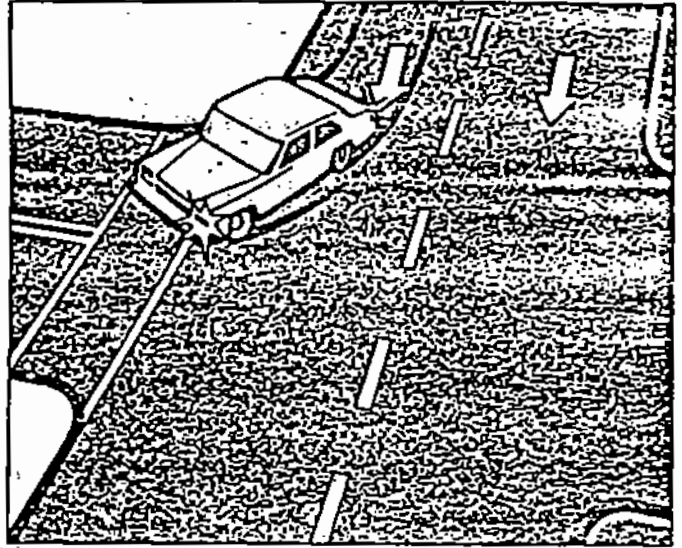
This cue encompasses any acceleration or deceleration that is significantly more rapid than that required by the traffic conditions. Rapid acceleration might be accompanied by breaking traction; rapid deceleration might be accompanied by an abrupt stop. Also a vehicle might alternately accelerate and decelerate rapidly.

**30%
Headlights
Off**

The observed vehicle is being driven with both headlights off during a period of the day when the use of headlights is required.

**40%
Signaling
Inconsistent
With Driving
Actions**

A number of possibilities exist for the driver's signaling to be inconsistent with the associated driving actions. This cue occurs when inconsistencies such as the following are observed: failing to signal a turn or lane change; signaling opposite to the turn or lane change executed; signaling constantly with no accompanying driving action; and driving with four-way hazard flashers on.



A pocket-sized booklet listing these cues is available free of charge from:

**National Highway Traffic Safety Administration
Administrative Operations Division
Room 4423, 400 Seventh Street, SW.
Washington, DC 20590**

Ask for Guide for Detecting Drunk Drivers at Night. (DOT HS 805 711).

3. DIVIDED ATTENTION

It is important to understand the effects of alcohol are exhibited in driving so that the significance of visual cues will be recognized. Driving is a complex task involving a number of subtasks, many of which occur simultaneously. These include:

- o steering;
- o controlling the accelerator;
- o signaling;
- o controlling the brake pedal;
- o operating the clutch;
- o operating to gearshift;
- o observing other traffic;
- o observing signal lights, stop signs and other traffic control devices; and
- o making decisions (whether to stop, turn, speed up, slow down).

Safe driving demands the ability to divide attention among these various tasks. "Divided attention" simply means the ability to concentrate on two or more things at the same time. Under the influence of alcohol or many drugs, a driver's ability to divide attention is impaired. As a result, the impaired driver tends to concentrate on only the most important or critical parts of driving and to disregard the less important parts, often creating unexpected or dangerous situations for other drivers. Two examples were particularly evident in the videotape segment Visual Detection of Driving While Intoxicated. In one instance the driver signaled for left turn, but actually turned right. In the other, the driver stopped for a green light. In each case the driver was suffering impaired ability to divide attention.

- o The first driver was concentrating on steering, looking for the street where he wished to turn and slowing for the turn. The driver realized that a signal was required and actually operated the signal lever. But the driver didn't have enough attention left to move the lever in the right direction. Therefore he signaled left, but turned right.
- o The second driver was concentrating on controlling the car's speed and direction. He noticed the traffic light, but he did not have enough attention left to react to the specific color of the light. Therefore he stopped for a green light.

Some of the most significant evidence from all three phases of DWI detection can be related directly to the effects of alcohol or drugs on divided attention ability. We will return to the concept of divided attention in Session VI. Personal Contact and Session VII. Prearrest Screening.

4. RECOGNIZING AND DESCRIBING INITIAL CUES

Observing the vehicle in operation is the first task in DWI detection. Proper performance of that task requires two distinct but related abilities:

- o the ability to recognize evidence of alcohol or drug influence;
- o the ability to describe that evidence clearly and convincingly.

It is not enough that you observe and recognize symptoms of impaired driving. You also must be able to describe what happened so that others will have a clear mental picture of what took place. Improving your ability to recognize and clearly describe observational evidence requires practice.

5. THE STOPPING SEQUENCE

Your second task during Phase One of the detection process is to observe the manner in which the driver responds to your signal to stop, and to note any additional evidence of a DWI violation.

Cues reinforcing the suspicion of DWI may be found in the stopping sequence. After the command to stop is given, the alcohol impaired driver may exhibit additional important evidence of DWI. These cues may include:

- o an attempt to flee;
- o no response;
- o slow response;
- o an abrupt swerve;
- o sudden stop; and
- o striking the curb or another object.

Some of these cues come to light because the stop command places additional demands on the driver's ability to divide attention. The signal to stop creates a new situation with which the driver must cope. Flashing emergency lights or a siren demand and divert the driver's attention, requiring that the driver now divide attention between driving and responding to the stop command. Stopping itself requires the driver simultaneously to turn the steering wheel, put on the brakes, use a turn signal, and so on. Thus the driver's task becomes more complex when the stop command is given. If the driver is under the influence, he or she may not be able to handle this more complex task, and additional evidence of impairment may appear.

It is your responsibility to recognize, record and convey the additional evidence of driving impairment that may come to light during the stopping sequence. This task, like Task One, observing the vehicle in operation, requires:

- o the ability to recognize evidence of alcohol or drug influence; and
- o the ability to describe that evidence clearly and convincingly.

Recognizing and describing the reinforcing cues of DWI that appear during the stopping sequence requires practice.

SESSION VI

PHASE TWO: PERSONAL CONTACT

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SESSION VI

PHASE TWO: PERSONAL CONTACT

Upon successfully completing this session, the participants will be able to:

- o Identify typical cues of Detection Phase Two.
- o Describe the observed cues clearly and convincingly.

CONTENT SEGMENTS

- A. Overview: Tasks and Decision
- B. Typical Investigation Cues of the Driver Interview
- C. Recognition and Description of Investigation Cues
- D. Recognition and Description of Initial, Reinforcing and investigative Cues
- E. Interview/Questions Techniques
- F. Typical Cues of the Exit Sequence

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Video Presentation
- o Instructor-Led Demonstrations
- o Participant's Presentations

COMMUNICATIONS

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PERSONAL CONTACT

OVERVIEW

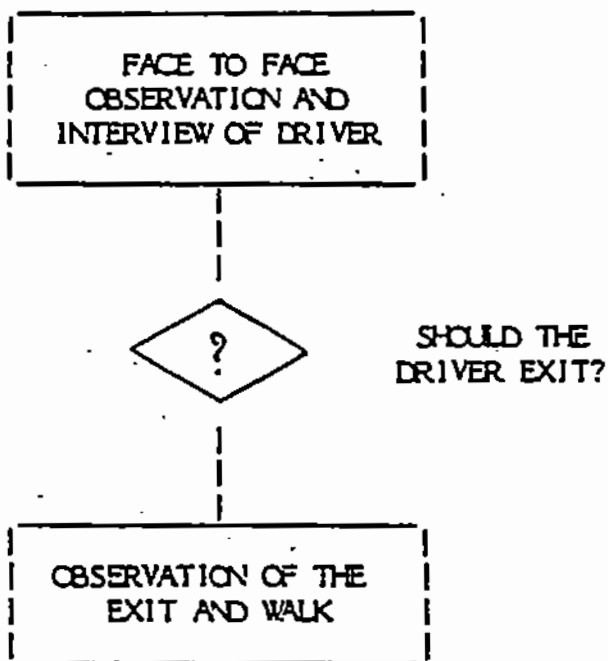
DWI Detection Phase Two: Personal Contact, like Phases One and Three, comprises two major evidence gathering tasks and one major decision. Your first task is to approach, observe and interview the driver while he or she is still in the vehicle to note any face-to-face evidence of impairment. During this face to face contact you may administer some simple pre-exit sobriety tests to gain additional information to evaluate whether or not the driver is impaired. After this evaluation, you must decide whether to request the driver to exit the vehicle for further field sobriety testing. In some jurisdictions this decision is an automatic one: departmental policy dictates that all drivers stopped on suspicion of DWI be instructed to exit. It is important to note that by instructing the driver to exit the vehicle, you still are not committed to an arrest; this is simply another step in the DWI detection process. Once you have requested the driver to exit the vehicle, your second task is to observe the manner in which the driver exits to note any additional evidence of impairment.

NOTE: You may initiate Phase Two without Phase One. This may occur, for example, at a roadblock, or when you have responded to the scene of an accident.

TASK ONE

The first task of Phase Two, observation and interview of the driver, begins as soon as the suspect vehicle and the patrol vehicle have come to complete stops. It continues through your approach to the suspect vehicle and involves all conversation between you and the driver prior to the driver's exit from the vehicle.

Phase Two: Personal Contact



You may have developed a strong suspicion that the driver is under the influence prior to the face to face observation and interview. You may have developed this suspicion by observing something unusual while the vehicle was in motion, or during the stopping sequence. On the other hand, you may have developed no suspicion of DWI prior to the face to face contact. The vehicle operation and the stop may have been fairly normal; you may have seen no actions suggestive of DWI. For example, you may have stopped the vehicle for a simple taillight violation, or for speeding, where no erratic or unusual driving was evident. In some cases, Phase One will have been absent. For example, you may first encounter the driver and vehicle after an accident or when responding to a request for motorist assistance.

Regardless of the evidence that may have come to light during Detection Phase One, your initial face to face contact with the driver usually provides the first definite indications that the driver is under the influence.

DECISION

Based upon your face to face interview and observation of the driver, and upon your previous observations of the vehicle in motion and the stopping sequence, you must decide whether there is sufficient reason to instruct the driver to step from the vehicle.

For some law enforcement officers, this decision is automatic, and always affirmative: their agency policy dictates that the driver always be told to exit the vehicle, regardless of the cause for the stop. Most agencies, however, treat this as a discretionary decision, to be based on what the officer sees, hears and smells during observation of and interview with the driver while the driver is seated in the vehicle.

If you decide to instruct the driver to exit, you must closely observe the driver's actions during the exit and walk from the vehicle and must note any evidence of alcohol or drug impairment.

TYPICAL INVESTIGATION CUES: THE DRIVER INTERVIEW

Face to face observation and interview of the driver allow you to use three senses to gather evidence of alcohol or drug influence:

- o the sense of sight;
- o the sense of hearing; and
- o the sense of smell.

SIGHT

There are a number of things you might see during the interview that would be describable cues or evidence of alcohol or drug influence. Among them are:

- o bloodshot eyes;
- o soiled clothing;
- o fumbling fingers;
- o alcohol containers;
- o drugs or drug paraphernalia;
- o bruises, bumps or scratches;
- o unusual actions.

HEARING

Among the things you might hear during the interview that would be describable cues or evidence of alcohol or drug influence are these:

- o slurred speech;
- o admission of drinking;
- o inconsistent responses;
- o abusive language;
- o unusual statements.

SMELL

There are things you might smell during the interview that would be describable cues or evidence of alcohol or drug influence. Typically these include:

- o alcoholic beverages;
- o marijuana;
- o "cover up" odors like breath sprays;
- o unusual odors.

REQUIRED ABILITIES

Proper face to face observation and interview of the driver demands two distinct but related abilities:

- o the ability to recognize the sensory evidence of alcohol or drug influence;
- o the ability to describe that evidence clearly and convincingly.

Developing these abilities requires practice.

PRE-EXIT SOBRIETY TESTS

A basic purpose of the face to face observation and interview of the driver is to identify and gather evidence of alcohol or drug influence. This is the purpose of each task in each phase of DWI detection.

During the face to face observation and interview stage, it is not necessary to gather sufficient evidence to arrest the driver immediately for DWI. It is necessary only to gather enough evidence to justify requesting the driver to step from the vehicle for further investigation.

TESTS

There are a number of simple tests of impairment you can administer to a driver while the driver is still behind the wheel. Most of these simple tests apply the concept of divided attention: they require the driver to concentrate on two or more things at the same time. The tests include both question and answer tests and psychophysical (mind-body) tests.

While these simple tests generally are not so reliable as the more structured formal roadside sobriety tests when it comes to indicating alcohol or drug influence, they can be very helpful in determining whether there is sufficient cause to request the driver to step from the vehicle.

Question and Answer Tests

The questions you ask and the way in which you ask them can constitute simple divided attention tests. Three techniques are particularly pertinent:

- o asking for two things simultaneously;
- o asking interrupting or distracting questions;
- o asking unusual questions.

An example of the first technique, asking for two things simultaneously, is requesting that the driver produce both the driver's license and the vehicle registration. Possible evidence of impairment may come to light as the driver responds to this dual request. Be alert for the driver who:

- o forgets to produce both documents;
- o produces documents other than the ones requested;
- o fails to see the license, registration or both while searching through wallet or purse;
- o fumbles or drops wallet, purse, license or registration;
- o is unable to retrieve documents using fingertips.

The second technique, asking interrupting or distracting questions, forces the driver to divide attention between searching for the license or registration and answering a new question. While the driver is responding to the request for license, registration or both, you ask an unrelated question like, "Without looking at your watch, can you tell me what time it is right now?" Possible evidence of impairment may be disclosed by the interrupting or distracting question. Be alert for the driver who:

- o ignores the question and concentrates only on the license or registration search;
- o forgets to resume the search after answering the question;
- o supplies a grossly incorrect answer to the question.

The third technique, asking unusual questions, is employed after you have obtained the driver's license and registration. Using this technique, you seek verifying information through unusual questions. For example, while holding the driver's license, you might ask the driver, "What is your middle name?" You might then ask, "In what year did you have your fifth birthday?"

There are many such questions which the driver normally would be able to answer easily, but which might prove difficult if the driver is impaired, simply because they are unusual questions. Unusual questions require the driver to process information; this can be especially difficult when the driver does not expect to have to process information. For example, a driver may respond to the question about the middle name by giving her first name. Similarly, a driver may respond to the question about the fifth birthday year by giving his birth year. In each case the driver ignores the unusual question and responds instead to a usual — but unasked — question.

BEHIND THE WHEEL PSYCHOPHYSICAL TESTS

Pre-exit sobriety tests also include psychophysical tests. Psychophysical tests are divided attention tests. They measure a subject's ability to handle both physical and mental tasks simultaneously.

Behind the wheel psychophysical tests may include the Alphabet, Count Down and Finger Count tests. These field tests of a driver's mental and physical impairment are often administered outside the vehicle. However, they also can be given while the driver is still inside the vehicle. Whenever these tests are given, you should provide clear instructions and, if possible demonstrate what the driver should do. You must verify that the driver has the mental capacity and education to perform the tests. This can be done by asking the driver to repeat the instructions and whether he or she understands what is required.

ALPHABET TEST

The Alphabet Test requires the subject to recite a part of the alphabet. You instruct the subject to recite the alphabet beginning with a letter other than A and stopping at a letter other than Z. For example, you might say to a driver, "Recite the alphabet, beginning with the letter E as in Edward and stopping with the letter P as in Paul." This divides the driver's attention because the driver must concentrate to begin at an unusual starting point and recall where to stop.

COUNT DOWN TEST

The Count Down Test requires the subject to count out loud 15 or more numbers in reverse sequence. For example, you might request a driver to, "Count out loud backwards, starting with the number 68 and ending with the number 53." This, too, divides attention because the driver must continuously concentrate to count backwards while trying to recall where to stop. NOTE: This test should never be given using starting and stopping points that end in 0 or 5 because these numbers are too easy to recall. For example, do not request that the driver count backwards from 65 to 50. Instead, ask the driver to count backwards from 64 to 49.

FINGER COUNT TEST

In this test, the subject is asked to touch the tip of the right thumb in turn to the tip of each finger on the right hand while simultaneously counting up one, two, three, four; then to reverse direction on the fingers while simultaneously counting down four, three, two, one.

In each instance, note whether and how well the subject is able to perform the divided attention task.

THE EXIT SEQUENCE

Your decision to instruct the driver to step from the vehicle usually is made only after you have developed a definite suspicion that the driver is under the influence.* Even though that suspicion may be very strong, usually the suspect is not yet under arrest when you give the instruction.

How the driver steps and walks from the vehicle and his or her actions and behavior during the exit sequence may provide important evidence of alcohol or drug influence. Be alert to the driver who:

- o shows angry or unusual reactions;
- o cannot follow instructions;
- o cannot open the door;
- o leaves the vehicle in gear;
- o "climbs" out of vehicle;
- o leans against vehicle;
- o keeps hands on vehicle for balance.

Proper face to face observation and interview of a driver requires the ability to recognize the sensory evidence of alcohol or drug influence and the ability to describe that evidence clearly and convincingly. Developing these abilities takes practice.

*Except, however, that you may instruct a suspect to exit the vehicle as a means of ensuring your own safety. Safety considerations take precedence over all other considerations.

TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. The two major evidence gathering tasks of Phase Two are _____

2. The major decision of Phase Two is _____

3. Among the describable cues an officer might see during the Phase Two interview are these three:

a.

b.

c.

4. Among the describable cues an officer might hear during the interview are these three:

a.

b.

c.

5. Among the describable cues an officer might smell during the interview are these two:

a.

b.

SESSION VII

PHASE THREE: PRE-ARREST SCREENING

SESSION VII

PHASE THREE: PRE-ARREST SCREENING

Upon successfully completing this session, the participants will be able to:

- o Describe the role of psychophysical and preliminary breath tests.
- o Define and describe the concepts of divided attention and nystagmus.
- o Discuss the advantages and limitations of preliminary breath testing.
- o Discuss the arrest decision process.

CONTENT SEGMENTS

- A. Overview: Tasks and Decision
- B. Divided Attention Tests: Concepts, Examples, Demonstrations
- C. Horizontal Gaze Nystagmus - Concepts, Demonstration
- D. Vertical
- E. Advantages and Limitations of Preliminary Breath Testing
- F. The Arrest Decision

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Instructor-Led Presentations

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PRE-ARREST SCREENING

PHASE THREE TASKS AND DECISION

Like Phases One and Two, DWI Detection Phase Three, Prearrest Screening has two major evidence gathering tasks and one major decision.

PSYCHOPHYSICAL
(FIELD) SOBRIETY TESTING



IS THERE PROBABLE CAUSE TO
ARREST THE SUSPECT FOR DWI?

PRELIMINARY
BREATH TESTING

Your first task in Phase Three is to administer structured formal psychophysical (field) sobriety tests. Based on these tests and on all other evidence from Phase One and Two, you must decide whether there is sufficient probable cause to arrest the driver for DWI. Your second task may then be to administer (or arrange for) a preliminary breath test (PBT) to confirm the chemical basis of the driver's impairment, if your agency uses PBTs. The entire detection process culminates in the arrest/no arrest decision.

PSYCHOPHYSICAL TESTS

Psychophysical tests are methods of assessing a suspect's mental and physical impairment. The tests are designed to determine the level of impairment needed for safe driving: balance, coordination, information processing and so on.

Psychophysical testing actually begins as soon as you come into face to face contact with the suspect and begin to interview him or her. Psychophysical testing continues as the suspect steps from the vehicle and you observe the manner of the exit and walk from the vehicle. The most significant psychophysical tests usually are formal, structured tests that you administer at roadside. The entire process may be described as a three level testing process comprising:

Level One Testing - Simple, Pre-exit Tests including the Alphabet and Finger Count Tests.

Level Two Testing - Observing the Exit, noting the suspect's balance, coordination, reactions and ability to follow instructions.

Level Three Testing - Formal Field Sobriety Tests, administering formal, structured roadside tests.

PRELIMINARY BREATH-TEST

The preliminary breath test (PBT) can help to corroborate all other evidence and to confirm your judgment as to whether the suspect is under the influence. Usually PBT results cannot be introduced as evidence against the driver in court. However, state laws vary in this regard.

THE ARREST DECISION

The DWI detection process concludes with the arrest decision. This decision is based on all of the evidence you have obtained during all the investigation phases: observation of the vehicle in the roadway during the stopping sequence, the field sobriety tests, and interview of the driver; and on the results of information obtained from the PBT.

DIVIDED ATTENTION TESTS

INTRODUCTION

Many of the most common and most important physical tests employ the concept of divided attention. ~~They require the subject to concentrate on two things at once.~~ Driving is a complex divided attention task. In order to operate a vehicle safely, drivers must simultaneously control steering, acceleration and braking; react appropriately to a constantly changing environment; and perform many other tasks. Alcohol and many other drugs substantially reduce a person's ability to divide attention among tasks like these. Under the influence of alcohol or other drugs, drivers often must ignore the less critical tasks of driving in order to focus their impaired attention on the more critical tasks. For example, a driver may ignore a traffic signal and focus instead on speed control.

Even when they are under the influence, many people can handle a single, focused attention task fairly well. For example, a driver may be able to keep the vehicle well within the proper traffic lane, as long as the road remains fairly straight. However, most people when under the influence cannot satisfactorily divide their attention to handle multiple tasks at once.

~~The concept of divided attention has been applied to psychophysical testing. Field sobriety tests that simulate the divided attention characteristics of driving have been developed and are being used by police departments nationwide. The best of these tests exercise the same mental and physical capabilities that a person needs to drive safely:~~

- o ~~information processing;~~
- o ~~short-term memory;~~
- o ~~judgment and decision-making;~~
- o ~~balance;~~
- o ~~steady-state reactions;~~
- o ~~coordination;~~
- o ~~small-muscle control;~~
- o ~~coordination of limbs.~~

Any test that requires a person to demonstrate two or more of these capabilities simultaneously is potentially a good psychophysical test.

~~Simplicity is just as important as difficulty in testing.~~ It is not enough to select a test that just divides the subject's attention. The test also must be one that is reasonably simple for the average person to perform when sober. Tests that are difficult for a sober subject to perform have little or no evidentiary value.

~~divided attention field sobriety tests have proven accurate and effective in~~
~~detecting the Walk and Turn and the One Leg Stand. These tests are described~~
briefly below.

WALK AND TURN

Walk and Turn is a test that has been validated through extensive research sponsored by the National Highway Traffic Safety Administration (NHTSA). ~~This divided attention test consists of two stages:~~

- ~~o Instructions Stage;~~
- ~~o Walking Stage.~~

In the ~~Instructions~~ stage the subject ~~stands on a line with feet heel-to-toe~~
~~position, keeps arms at his sides, and listens to instructions. The Instructions Stage divides the~~
subject's attention between a balancing task (standing on the line while maintaining the heel-to-toe position) and an information processing task (listening to and remembering instructions).

In the ~~Walking~~ stage the subject ~~take nine heel-to-toe steps down the line, turn in a~~
~~prescribed way, and take nine heel-to-toe steps up the line, while counting the steps out~~
~~loud. During the turn, the subject must keep one foot on the line, pivot on that foot, and~~
use the other to take several small steps to complete the turn. The Walking Stage divides the subject's attention among a balancing task (walking heel-to-toe and turning on the line); a small muscle control task (counting out loud); and a short-term memory task (recalling the number of steps and the turning instructions).

The Walk and Turn test is administered in a standardized fashion, i.e., the same way every time. It is also interpreted in a standardized fashion. Specifically, officers administering Walk and Turn carefully observe the suspect's performance for eight clues:

- ~~o can't balance during instructions;~~
- ~~o steps too soon;~~
- ~~o steps over walking;~~
- ~~o doesn't touch heel-to-toe;~~
- ~~o steps off line;~~
- ~~o uses arms to balance;~~
- ~~o loses balance on turn or turns incorrectly;~~
- ~~o takes the wrong number of steps.~~

Sometimes, suspects cannot complete the test. Inability to complete the test occurs when the suspect:

- ~~o steps off the line three or more times;~~
- ~~o is in danger of falling;~~
- ~~o otherwise demonstrates that he or she cannot do the test.~~

Research shows that [redacted] of the suspect cannot complete the test, the suspect's score is likely to be 0% or more. This criterion is shown to [redacted].

ONE LEG STAND

The One Leg Stand test also has been validated through NHTSA's research program. It is a divided attention test consisting of two stages:

- o Instructions Stage;
- o Balancing and Counting Stage.

In the Instructions Stage, the subject stands with feet together and toes slightly apart, knees straight, arms at sides, and listens to instructions. This divides the subject's attention between a balancing task (maintaining a stance) and an information processing task (listening to and remembering instructions.)

In the Balancing and Counting Stage, the subject stands on one foot and holds the other foot straight out horizontally, parallel to the ground, approximately 18 inches from the body and one to one thousand and thirty. This divides the subject's attention between balancing (standing on one foot) and small muscle control (counting out loud).

The [redacted] of the One Leg Stand test. Research [redacted] impaired subjects are able to maintain one leg balance for 10 to 30 seconds, but that relatively few can do so for 30 seconds.

One Leg Stand is also administered and interpreted in a standardized fashion. Officers carefully [redacted]:

- o stand with feet together;
- o stand with knees straight;
- o stand with arms at sides;
- o listen to instructions.

Sometimes suspects cannot complete the test. Inability to complete One Leg Stand [redacted] the suspect.

- o put the foot down before the 30 second mark;
- o otherwise demonstrate that they are unable to complete the test.

Research shows that, when the suspect produces [redacted] or is unable to complete the test, it is likely that the suspect is impaired. This criterion is shown to be a reliable 55 percent of the time.

HORIZONTAL GAZE NYSTAGMUS TEST

"Nystagmus" means an involuntary jerking of the eyeballs. Horizontal gaze nystagmus (HGN) is a type of nystagmus that occurs as the eyes move from side to side. In addition to being involuntary, the jerking is also noticeable. The person experiencing the nystagmus usually is unaware that the jerking is happening, and is unable to control it.

Under the influence of alcohol or certain other drugs, the involuntary jerking of the eyeballs becomes much more distinct, and readily noticeable. And, as a person's blood alcohol concentration increases, the eyeballs will begin to jerk sooner as they move to the side.

Horizontal gaze nystagmus is a very reliable field sobriety test. Especially when used in combination with the divided attention tests, it will help police officers correctly distinguish suspects who are under the influence of alcohol from those who are not.

When the HGN test is administered, each eye is checked separately. And, each eye is examined for three specific clues.

- o As the eyeball is moved from side to side, does it move smoothly or does it jerk noticeably? (As people become under the influence of alcohol, their eyeballs exhibit a lack of smooth movement as they move from side to side).
- o When the eyeball is moved as far to the side as possible and is kept at that position for several seconds, does it jerk distinctly? (Distinct jerking at maximum lateral excursion is another clue of alcoholic influence).
- o As the eyeball is drawn toward the side, does it start to jerk before it has moved through a 45-degree arc? (Onset of jerking prior to 45-degrees is another clue of alcoholic influence).

As a person's blood alcohol concentration increases, the more likely it is that these clues will appear.

The maximum number of clues that may appear in one eye is three. The maximum number for any suspect is therefore six. It is noted that if more than three clues are evident, it is likely that the suspect's blood alcohol concentration is 0.10 or higher. The reliability of this four-or-more clues criterion is 97%.

The eyes are checked for equal tracking ability (can they follow an object together) and for convergence. If the eyes do not track together, or if the pupils are noticeably unequal in size, the chance of medical disorders or injuries causing the nystagmus is increased.

VERTICAL NYSTAGMUS

Vertical nystagmus refers to an involuntary jerking that occurs as the eyes move toward the center point. Although this type of nystagmus was not examined in the research that led to the validation of the Standardized Field Sobriety Test battery, field experience has indicated that a check for vertical nystagmus can be a reliable indicator of CNS depression. Vertical nystagmus can also be present in individuals who are more likely to be present when the subject has taken high doses of CNS depressant medications.

There is only one clue to look for, the eyes jerking as the gaze is raised vertically. The Vertical Nystagmus test is very simple to administer.

1. Position the stimulus horizontally, about 15 inches in front of the subject's nose.
2. Instruct the subject to hold the head still, and follow the object with the eyes only.
3. Raise the object until the subject's eyes are elevated as far as possible.
4. Watch closely for evidence of jerking.

PRELIMINARY BREATH TESTING

The ~~basic purpose of preliminary breath testing (PBT) is to determine the correlation of alcohol with the observable evidence of the suspect's impairment.~~ The suspect's impairment is established through sensory evidence: what the officer sees, hears and smells. The PBT provides the evidence that alcohol is the chemical basis of that impairment by yielding an on-the-spot indication of the suspect's blood alcohol concentration (BAC). The PBT provides direct indication of the BAC level. It does not indicate the level of the suspect's impairment. ~~Impairment may be indicated by PBT in conjunction with the same BAC level.~~

Preliminary breath testing, like psychophysical testing, is a stage in the pre-arrest screening of a DWI suspect. Usually the suspect is not yet under arrest when requested to submit to the preliminary breath test. The DWI incident remains at the investigative stage; the accusatory stage has not yet begun. The PBT result is only one of many factors the officer considers in determining whether the suspect should be arrested for DWI. It should never be the sole basis for a DWI arrest. Nevertheless the PBT result is an important factor because it provides the only direct indication of alcoholic influence. All other evidence, from initial observation of the vehicle in operation through formal psychophysical testing, indicates alcoholic influence indirectly, based on impairment of the suspect's mental and physical faculties.

ADVANTAGES OF PBT

A PBT offers several important advantages for DWI detection. It may:

- o corroborate other evidence by demonstrating that the suspicion of alcoholic influence is consistent with the officer's observations of the suspect's mental and physical impairment.
- o confirm the officer's own judgment helping the officer gain confidence in his or her ability to evaluate alcoholic impairment accurately, based on observations and psychophysical tests. (Many officers experienced in DWI enforcement find that they rely less and less on the PBT as their confidence in their own powers of detection increases).
- o disclose the possibility of medical complications or impairment due to drugs other than alcohol. (The PBT can confirm or deny that alcohol is the cause of the observed impairment. For example, observed psychophysical impairment coupled with a PBT result showing a very low BAC indicates an immediate need to investigate the possibility that the suspect has ingested a drug other than alcohol or suffers from a medical problem).
- o help to establish probable cause for a DWI arrest. (The role of the PBT in establishing probable cause may be affected by the evidentiary value of PBT results in your state. Refer to Unit 4, Part 4 for more information. Consult your specific PBT law, your supervisor, or the local prosecutor for clarification, if necessary).

LIMITATIONS OF PBT

Preliminary breath testing may have both evidentiary limitations and accuracy limitations. Evidentiary limitations vary with specific laws. In some states PBT results are admissible as evidence; in other states they are not admissible. Where the results are admissible, there may be differences in the weight or probative value they are given. Consult your state PBT law, your supervisor or your local prosecutor, as necessary, for clarification.

PBT instruments have accuracy limitations. Although all PBT instruments currently used by law enforcement are reasonably accurate, they are subject to the possibility of error, especially if they are not used properly. There are factors that can affect the accuracy of alcohol breath testing and analysis. Some of these factors tend to produce "high" test results; others tend to produce "low" results.

There are two common factors that tend to produce high results on a PBT or other alcohol breath test.

- o Residual mouth alcohol. After a person takes a drink, some of the alcohol will remain in the mouth tissues. If the person exhales soon after drinking, the breath sample will pick up some of this left-over mouth alcohol. In this case, the breath sample will contain an additional amount of alcohol and the test result will be higher than the true BAC.

It takes approximately 15 minutes for the residual alcohol to evaporate from the mouth. Evaporation cannot be speeded up significantly by having the suspect gargle with water or in any other way.

The only sure way to eliminate this factor is to make sure the suspect does not take a drink or put any alcohol in his or her mouth for at least 15 to 20 minutes before conducting a breath test. Remember, too, that most mouthwashes, breathsprays, cough syrups, etc., contain alcohol and will produce residual mouth alcohol. Therefore, it is always best not to permit the suspect to put anything in his or her mouth for at least 15 to 20 minutes prior to testing.

- o Breath Contaminants. In theory at least, some types of breath tests might react to certain substances other than alcohol. For example, substances such as ether, chloroform, acetone, acetaldehyde and cigarette smoke conceivably could produce a positive reaction on certain breath testing instruments. If so, the test would be contaminated and its result would be higher than the true BAC. Normal characteristics of breath samples, such as halitosis, food odors, etc., do not affect breath test accuracy.

There are two common factors that tend to produce low alcohol breath test results.

- o **Cooling of the breath sample.** If the captured breath sample is allowed to cool before it is analyzed, some of the alcohol vapor in the breath may turn to liquid and precipitate out of the sample. If that happens, the subsequent analysis of the breath sample will produce a low BAC result.
- o **The composition of the breath sample.** Breath composition means the mixture of the tidal breath and alveolar breath. Tidal breath is breath from the upper part of the lungs and the mouth. Alveolar breath is deep lung breath. Breath testing should be conducted on a sample of alveolar breath, obtained by having the subject blow into the PBT instrument until all air is expelled from the lungs.

THE ARREST DECISION

Your arrest/no arrest decision is the culmination of the DWI detection process. Your decision is based on all the evidence you have accumulated during each detection phase.

Vehicle in Motion

- o Initial observation of vehicle in motion.
- o Observation of the stop.

Personal Contact

- o Reason for the stop.
- o Observation of the driver.

Prearrest Screening

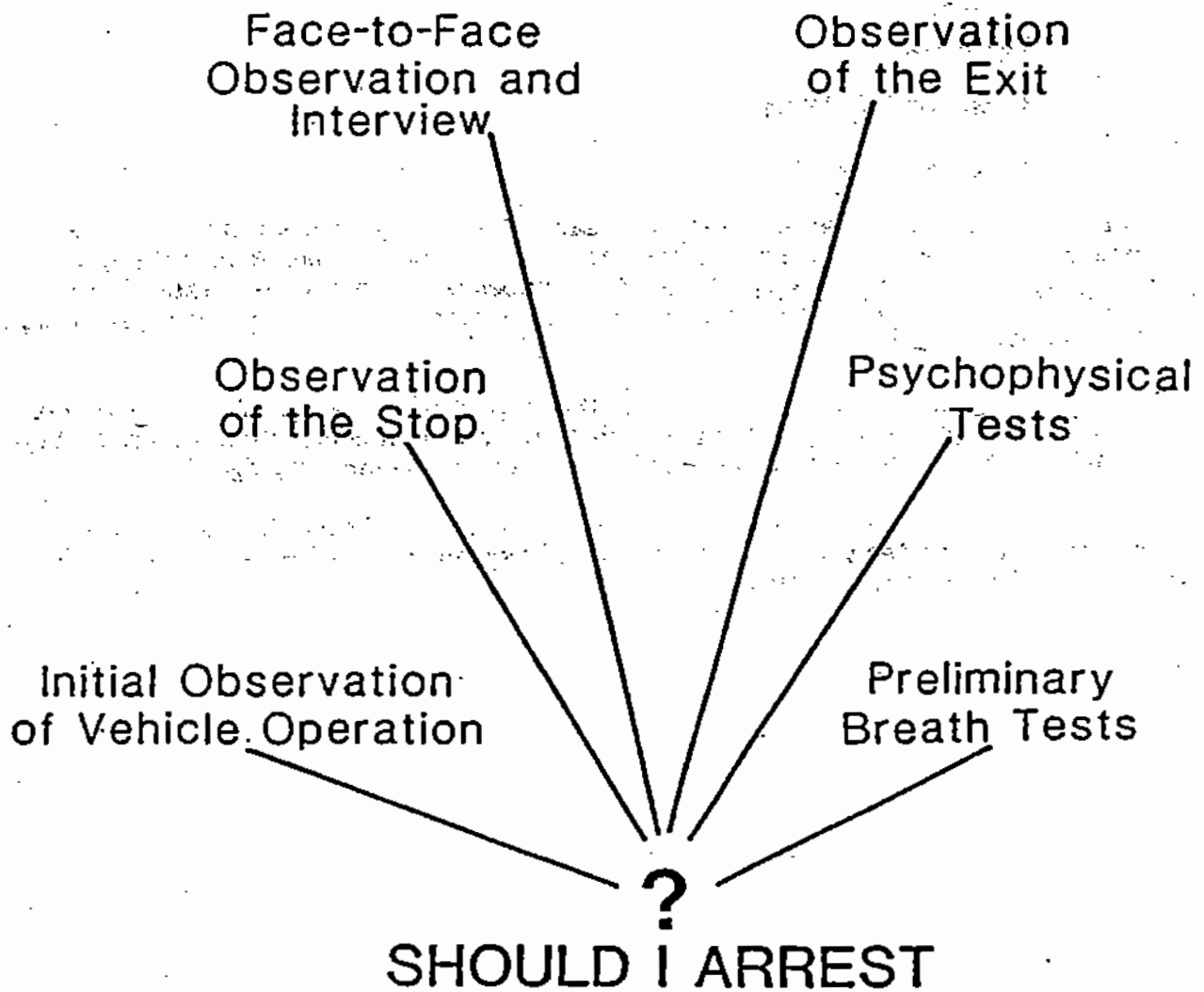
- o Physical/physical tests.
- o Preliminary chemical tests.

Your decision involves a careful review of each of the observations you have made. Conduct a "mental summary" of the evidence collected during vehicle in motion, personal contact and prearrest screening. If all of the evidence, taken together, establishes probable cause to believe that DWI has been committed, you should effect physical arrest of the suspect for DWI.

Under no circumstances should you charge the suspect with a lesser offense instead of DWI if there is probable cause to believe that DWI has been committed. Any reduction of DWI to a lesser charge is the responsibility of the prosecutor or judge.

In the absence of probable cause, the proper decision is to release the suspect or, if the suspect has committed another violation, such as speeding or failing to obey a traffic signal, to cite for that violation.

THE ARREST DECISION IS BASED ON
ALL EVIDENCE
ACCUMULATED DURING
ALL THREE DETECTION PHASES



SESSION VIII

**CONCEPTS AND PRINCIPLES OF THE
STANDARDIZED FIELD SOBRIETY TESTS**

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SESSION VIII

CONCEPTS AND PRINCIPLES OF THE STANDARDIZED FIELD SOBRIETY TESTS

Upon successfully completing this session, the participant will be able to:

- o Discuss the different types of nystagmus and their effects on the horizontal gaze nystagmus test.
- o Discuss and properly administer the three standardized field sobriety tests.
- o Discuss and recognize the clues of the three standardized field sobriety tests.
- o Describe in a clear and convincing fashion and properly record the results of the three standardized field sobriety tests on a standard note taking guide.
- o Discuss the limiting factors of the three standardized field sobriety tests.

CONTENTS SEGMENTS

- A. Overview: Development and Validity
- B. Horizontal Gaze Nystagmus
- C. Walk and Turn
- D. Combining the Clues of the Horizontal Gaze Nystagmus and Walk and Turn
- E. One Leg Stand
- F. Limitations of the Three Tests
- G. Taking Field Notes on the Standardized Field Sobriety Tests

LEARNING ACTIVITIES

- Instructor-Led Presentation
- Instructor-Led Demonstration
- Participant Practice Session and Demonstration

Procedures of Horizontal Gaze Nystagmus Testing

A. General Procedures: The Three Clues

As explained earlier, nystagmus is a condition of the eyes. ~~of different kinds of nystagmus, an obvious influence by alcohol~~ The test you will use at roadside is a test of ~~that occurs when the eyes are moved to the side~~. Many people will show some jerking if the eyes move far enough to the side. ~~Use the following three signs to determine if a suspect is intoxicated:~~

1. ~~The suspect cannot follow a slowly moving object smoothly with the eyes;~~ instead, the eyeballs can be observed to jerk or "bounce" as they move left and right in pursuit of a smoothly moving object, such as a pencil or penlight.
2. When you have the suspect move his or her eyes as far to the side as possible, ~~distinct jerking of the eyeballs is observed~~ some people exhibit slight jerking of the eyeballs at maximum deviation, even when sober; but when under the influence of alcohol, the jerking is likely to be very pronounced, and easily observable.
3. The more intoxicated a person becomes, the less the eyes have to move toward the side before jerking begins. Usually when a person's BAC is 0.10% or more, ~~the eyes will begin to jerk at a 45-degree angle to the side.~~

B. Estimating a 45-Degree Angle of Gaze

Because the 45-degree angle is a key factor in assessing a suspect's degree of alcoholic influence, it is important to know how to estimate that angle.

For practice, a 45-degree template can be prepared by making a 15"-square cardboard and connecting its opposite corners with a diagonal line.

To use this device, hold it up so that the person's nose is above the diagonal line. Be certain that one edge of the template is centered on the nose and perpendicular to (or, at right angles to) the face. Have the person you are examining follow a penlight or some other object until he or she is looking down the 45-degree diagonal. Note the position of the eye. With practice, you should be able to recognize this angle without using the template.



C. Specific Procedures

Begin by ~~asking the suspect if he is wearing contact lenses~~. There is only a very slight chance that contact lenses might interfere with the HGN test. But, ~~it is wise to make a note of the fact that the suspect has contact lenses before starting the test.~~

~~If the suspect is wearing eyeglasses, tell him or her to remove the glasses.~~

~~Place the suspect in a standing position from a position of interrogation (that is, with your weapon away from the suspect):~~

- o ~~Keep your eyes on the suspect's eyes.~~
- o ~~Keep your hands and feet still (indicate the object) with your eyes only.~~
- o ~~Keep focusing on this until I tell you to stop.~~

~~Check the suspect's eyes for nystagmus by tracking together. Move the object smoothly across the subject's entire field of vision. Check to see if the eyes track the object together smoothly and hold together. If the eyes don't track together it is possibly caused by a medical disorder or injury, or blindness.~~

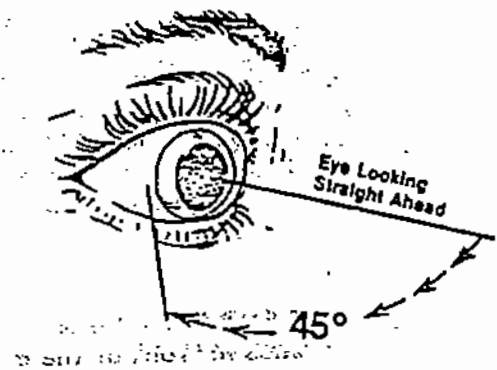
~~Next check to see that both pupils are approximately equal in size. If they are not, this may indicate a head injury.~~

~~Check the suspect's left eye by moving the object to your right. Move the object smoothly, at a speed that requires about four seconds to bring the object from far to the side to the center. While moving the object, look at the suspect's eyeball and determine if the eye is moving smoothly. Don't hesitate to make two passes. The second pass is for the eye to look back to the center about 10 seconds after you have moved the left eye to the smooth position from the right eye.~~

~~As you have checked the eye for the smooth position, check the eye for divergence by moving the object to the left. Simply move the object to the side until the eye has gone as far to the side as possible. As you move the object to the side, watch the eyeball and determine if the eye is moving smoothly. Hold the eyeball at that position for two or three seconds and observe the eyeball for distinct jerking.~~

~~After checking the eyes at maximum deviation, check the nystagmus onset angle for both eyes, beginning with the left eye.~~

Move the object a second time to the 45-degree angle or gaze, taking about 4 seconds. As the eye follows the object, watch for it to start jerking back and forth. ~~If you think you are going to stop the movement to see if the jerking continues, if it does, this is the onset angle. If it does not, keep moving the object until the jerking does occur or until you reach the 45-degree point. Note whether or not the onset occurs before the 45-degree angle of gaze.~~



If the suspect's eyes start jerking before they reach 45 degrees, check to see that some white of the eye is still showing on the side closest to the center. If no white of the eye is showing, you either have taken the eye too far to the side (that is more than 45 degrees) or the person has unusual eyes that will not deviate very far to the side.

NOTE: Nystagmus may be due to causes other than alcohol. These other causes include certain medications, physical trauma (e.g., head injuries) and other depressants. A large disparity between the performance of the right and left eye may indicate brain damage.

- 1. [REDACTED]
- 2. [REDACTED]
- 3. [REDACTED]
- 4. [REDACTED]
- 5. [REDACTED]
- 6. [REDACTED] ("high speed" pass)
- 7. [REDACTED]
- 8. [REDACTED]
- 9. [REDACTED]
- 7. [REDACTED]

D. Test Interpretation

You should look for three clues of intoxication in each eye.

1. The eye cannot follow a moving object smoothly.
2. [REDACTED] is distinct when the eye is at maximum deviation.
3. The angle of onset or jerking for the eye is within 45 degrees.

If, between the two eyes, four or more clues are observed, it is likely that the suspect's BAC is 0.10% or more. Using this criterion you can be able to classify correctly about 77% of your suspects with respect to whether they are drunk or sober. That probability was determined during limited laboratory and field testing and is given simply to help you weigh the various sobriety tests in this battery as you make your arrest decision.

E. Test Conditions

Very few test conditions will affect gaze nystagmus. Most of the test requirements given in this manual are designed to make the observation of nystagmus as easy as possible for the officer doing the testing.

Nystagmus can be observed directly and requires no special equipment. You will need something for the suspect to follow with the eyes, but this can be as simple as the tip of your index finger. Officers who use this test frequently have the suspect follow a penlight. The object used should be held horizontally, so that the suspect will observe it directly with the eyes. It should be held about 16 inches in front of the suspect's eyes.

- o While walking, keep your feet on the line at all times and your arms straight out.
- o Once you start walking, don't stop until you reach the end of the test.
- o Remember the instructions. (Make sure suspect indicates he or she understands.)
- o Begin and count your first step from the heel-to-toe position as "one".

C. Test Interpretation

You may observe a number of different behaviors when a suspect performs this test. Research, however, has demonstrated that the behaviors noted below are the most likely to be observed in someone with a BAC of 0.10 or more. Look for the following clues each time this test is given:

1. Clumsiness while listening to the instructions. The suspect remains at the beginning of the test with his or her feet on the heel-to-toe position and does not start walking until the instructions are given. Typically, the person who is intoxicated can do only one or two things. He or she may listen to the instructions, but not keep balance. Record this clue if the suspect does not maintain the heel-to-toe position throughout the instructions. Do not record this clue if the suspect sways or uses the arms to balance but maintains the heel-to-toe position.
2. Starts walking before instructions are finished. The intoxicated person also loses balance, but not listen to the instructions. Since you specifically instruct the suspect not to start walking until you say "begin," record this clue if the suspect goes out early.
3. Starts walking on the wrong foot. The suspect starts walking on the wrong foot after you say "begin." Do not record this clue if the suspect starts walking on the right foot.
4. Does not keep feet on the line. The suspect does not keep his or her feet on the heel and toe on any step. Also record this clue if the suspect does not walk straight along the line.
5. Steps off the line. The suspect steps off the line at any time during the test.
6. Uses arms to maintain balance. The suspect uses his or her arms to maintain balance.
7. Leaves the line while walking. The suspect removes his or her feet from the line while walking. That is, record this clue if both feet are removed from the line. Also record this clue if the suspect does not follow the directions in turning; for example, he or she turns in the wrong direction instead of the correct direction or movement that was instructed to perform.

E. ~~Combined Interpretation of Gaze Nystagmus Test~~

The Decision Table below is designed to help you classify those suspects with a potential BAC of 0.10% or more. You will recall that the decision point on the Gaze Nystagmus Test was four clues, while on the Walk and Turn Test is was two. However, a suspect may score higher on one test and lower on the other. How do you make your decision? Find the box on the Decision Table where the two test results intersect and see if it falls in the shaded area. (For example, suppose a suspect produced only three clues on the Gaze Nystagmus but two clues on the Walk and Turn. Is he intoxicated? The Decision Table says yes. But if he scored three on the Gaze Nystagmus and only one on the Walk and Turn, the Table says his or her BAC is probably below 0.10%.)

~~By using this table, you will be able to classify your suspects as to whether their BAC is above or below about 0.10%.~~

DECISION TABLE

Nystagmus Gaze Test Clues

	0	1	2	3	4	5	6
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							

NOTE: ~~If a suspect fails to complete the Walk and Turn Test, that suspect should be classified as having produced nine clues on that test.~~

Release of Suspect from Custody

A. Initial Stages: Physical Positioning and Verbal Instructions

Initial the suspect using the following verbal instructions, ~~accompanied by~~ **demonstrations:**

- o Please stand with your heels together and your arms down at the sides, like this (demonstrate).
- o ~~Do not start to perform the test until I tell you to do so.~~
- o Do you understand the instructions so far? (Make sure suspect indicates he or she understands.)

B. Demonstrations and Instructions for the Relaxed and Counting Stage

Explain the test requirements, using the following verbal instructions, ~~accompanied by~~ **demonstrations:**

- o When I tell you to start, you will stand on one leg, holding the other foot out in front, like this (demonstrate one leg stance).
- o You may move your other leg as you wish.
- o Keep the raised foot about 6 inches off the ground, like this (demonstrate).
- o While you are standing, you will count out loud for 60 seconds, like this (demonstrate counting out loud from one thousand, two thousand, and so on in 1000's to thirty thousand).
- o Throughout the entire test, keep your back and the side of your waist straight, and keep your raised foot.
- o ~~Remember to keep your back straight.~~
- o Do you understand? (Make sure suspect indicates he or she understands.)
- o ~~Do not start to perform the test.~~

C. ~~Test Interpretation~~

You may observe a number of different behaviors when a suspect performs this test. ~~However, not every behavior listed below is a failure for the test. Each time the One Leg Stand test is given,~~

1. ~~The suspect sways while balancing.~~
This refers to side-to-side or back-and-forth motion while the suspect maintains the one-leg-stand position.
2. ~~The suspect moves arms 6 or more inches from the side of the body in order to keep balance.~~ He or she moves the arms 6 or more inches from the side of the body in order to keep balance.
3. ~~The suspect is able to keep one foot off the ground, but resorts to hopping on the anchor foot in order to maintain balance.~~ He or she is able to keep one foot off the ground, but resorts to hopping on the anchor foot in order to maintain balance.
4. ~~The suspect is not able to maintain the one-leg-stand position, putting the foot down one or more times during the 30-second count.~~ The suspect is not able to maintain the one-leg-stand position, putting the foot down one or more times during the 30-second count.
5. ~~Record a failure to complete the test if the suspect puts the foot down three or more times during the 30-second count or otherwise demonstrates that he or she cannot to the test.~~ Record a failure to complete the test if the suspect puts the foot down three or more times during the 30-second count or otherwise demonstrates that he or she cannot to the test.



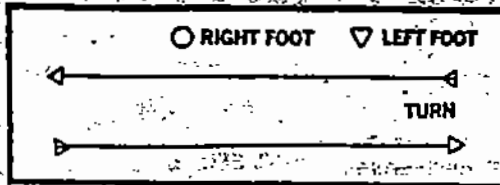
~~Remember that time is critical in this test. Research has shown that a person with a BAC of 0.10% can maintain the one-leg stand for up to 25 seconds, but seldom~~

~~If an individual fails the One Leg Stand, there is a good chance that his or her BAC is above the legal limit. Using this information, you will correctly identify about 80% of the people you test as to whether their BAC's are above or below 0.08%.~~

IV PRE-ARREST SCREENING (CONTINUED)

WALK AND TURN

INSTRUCTIONS STAGE
 CANNOT KEEP BALANCE
 STARTS TOO SOON



WALKING STAGE

FIRST NINE STEPS
 SECOND NINE STEPS

STOPS WALKING
 MISSES HEEL - TOE
 STEPS OFF LINE
 RAISES ARMS
 ACTUAL STEPS TAKEN

NYSTAGMUS

	0	1	2	3	4	5
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						

WALK AND TURN

THE TURN (DESCRIBE) _____

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

INTERSECTION: SHADED
 UNSHADED

ONE LEG STAND

	0 TO 10 SEC'S	11 to 20 SEC'S	21 to 30 SEC'S
SWAYS			
RAISES ARMS			
HOPS			
FOOT DOWN			

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

PBT

OTHER FIELD SOBRIETY TESTS

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

V GENERAL OBSERVATIONS

SPEECH _____

ATTITUDE _____

CLOTHING _____

OTHER _____

PHYSICAL EVIDENCE _____

Taking Field Notes on Horizontal Gaze Nystagmus Testing

The section on the horizontal gaze nystagmus test appears on the bottom of the guide's front side.

~~By examining the suspect's eyes, determine whether the suspect is wearing contact lenses. Check the "No" or "Yes" box to record the suspect's response.~~

Complete the entire test for both eyes, writing or otherwise indicating "yes" or "no" for each nystagmus clue.

- o Write "yes" if the clue is present;
- o Write "no" if the clue is present.

In the section labeled "other," record any facts, circumstances, conditions or observations that may be relevant to this test.

- o Examples of additional evidence of alcohol impairment emerging during nystagmus test:

- suspect unable to keep head still;
- suspect swaying noticeably;
- suspect utters incriminating statements.

- o Examples of conditions that may interfere with suspect's performance of the nystagmus test:

- Suspect has one artificial eye, or very weak vision in one eye (indicate which eye);
- Wind, dust, etc. (irritating suspect's eyes);
- numerous visual or other distractions impeding the test.

HORIZONTAL GAZE NYSTAGMUS

note: suspect - contacts?

	LEFT	RIGHT
★ EYE DOES NOT PURSUE SMOOTHLY		
★ DISTINCT NYSTAGMUS AT MAX. DEVIATION		
★ NYSTAGMUS ONSET BEFORE 45 DEGREES		

OTHER _____

Taking Field Notes on Walk and Turn Testing

The section on the walk and turn test appears at the top of the guide's back side.

The first two clues, "cannot keep balance" and "starts too soon" apply only during the instructions stage of the test. Record the number of times each of those clues appear.

For example, if the suspect's feet "break apart" from the heel-to-toe stance twice during the instructions stage, write "2" in the box alongside the "cannot keep balance" clue. Similarly, if the suspect never "starts too soon," write "0" in that box.

WALK AND TURN

INSTRUCTIONS STAGE

CANNOT KEEP BALANCE

STARTS TOO SOON

WALKING STAGE

	FIRST NINE STEPS	SECOND NINE STEPS
STOPS WALKING	<input type="text"/>	<input type="text"/>
LOSSES HEEL - TOE	<input type="text"/>	<input type="text"/>
STEPS OFF LINE	<input type="text"/>	<input type="text"/>
RAISES ARMS	<input type="text"/>	<input type="text"/>
ACTUAL STEPS TAKEN	<input type="text"/>	<input type="text"/>

THE TURN (DESCRIBE) _____

CANNOT DO TEST (EXPLAIN) _____

Other: _____

Don't simply leave boxes blank. If a particular clue never shows up, write "0" in the corresponding box.

Record the next five clues separately for the walk up the line, and then down the line.

1. If a suspect stops walking, record how many times he or she does so.
 - o how many times during the first nine steps;
 - o how many times during second nine steps.
2. If suspect fails to touch heel-to-toe, record how many times this happens.
3. If suspect steps off the line while walking, record how many times this happens.
4. If suspect uses arms to balance, give some indication of how often or how long this happens.
 - o Example: suspect raised arms from sides three times; write "3" in box.
 - o Example: suspect held arms away from sides during 3 through 7; write "steps 3-7" in the box.
 - o Example: suspect "flapped" arms continuously; write "const. flaps" in the box.

5. Record the actual number of steps taken by suspect in each direction.

For the next point, "loses balance while turning," try to record a description of the turn.

- o Example: "turned correctly;"
- o Example: "stumbled, to left;"
- o Example: "turned to wrong direction;"
- o Example: "no small steps."

If you note that the suspect "cannot perform test," indicate explicitly why you did so.

- o Example: "off line five times;"
- o Example: "staggered six steps to right, nearly fell;"
- o Example: "leg locked after fifth step."

At end of the test, examine each scoring factor and determine how many distinct clues have been scored. Remember: each clue may appear several times, but still only constitutes one distinct clue.

In the section labeled "other," record any facts, circumstances, conditions or observations that may be relevant to this test.

- o Examples of additional evidence of alcohol impairment emerging during walk and turn test:
 - suspect verbally miscounts steps;
 - suspect utters incriminating statements.
- o Examples of conditions that may interfere with suspect's performance of the walk and turn test:
 - wind/weather conditions;
 - suspect's age, weight;
 - suspect's footwear.

Taking Field Notes on the Combined Interpretation of Nystagmus and Walk and Turn

The decision table for combining nystagmus and walk and turn scores appears on the upper right of the page.

Along the top of the table, circle the number corresponding to the suspect's nystagmus clues. Along the left side of the table, circle the number corresponding to the suspect's walk and turn clues.

On the "intersection" line immediately below the table, check either "shaded" or "unshaded."

- o Check "shaded" if the intersection of the two test results falls in the black or shaded area of the table;
- o Check "unshaded" if the intersection falls in the white or unshaded area.

		NYSTAGMUS							
		0	1	2	3	4	5	6	
WALK AND TURN	0								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								

INTERSECTION: SHADED UNSHADED

Remember: Combined interpretation of nystagmus and walk and turn is more reliable than either test, separately. By using the decision table, you can correctly classify about 80% of your suspects in terms of whether their BAC's are above or below 0.10%.

Taking Field Notes on One Leg Stand Testing

The section on the One Leg Stand test appears midway down the page.

Record the suspect's performance separately for the first 10 seconds of the test; for the middle 10 seconds; and for the final 10 seconds. By recording when things happen as well as what happens, you will be able to prepare a much more descriptive arrest report.

For each clue, record how often it appears during each time interval.

1. If suspect sways, indicate how often he or she swayed during each interval.
 - o Example: zero times during first 10 seconds; once during middle 10 seconds; continuously during final 10 seconds.
2. If suspect uses arms to balance, indicate how often arms were raised during each time interval.
3. If suspect hops, indicate how many hops were taken during each time interval.
4. If suspect puts foot down, indicate how many times the foot came down during each time interval.

If you note that the suspect "cannot perform test," indicate explicitly why you did so.

- o Example: "foot down four times;"
- o Example: "staggered three steps to right, then fell;"
- o Example: "continuous hopping, flaying arms, nearly falling."

At end of the test, examine each scoring factor and determine how many distinct clues have appeared.

Remember: A clue may appear several times, but still constitutes only one distinct clue.

ONE LEG STAND

	0 TO 10 SEC'S	10 TO 20 SEC'S	20 TO 30 SEC'S
SWAYS			
RAISES ARMS			
HOPS			
FOOT DOWN			

CANNOT DO TEST (EXPLAIN) _____

other: _____

TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. Walk and Turn is an example of _____, field sobriety test.
2. The Walk and Turn requires a visible straight line and _____.

3. During the _____ stage of the Walk and Turn, the suspect is required to count out loud.
4. When properly administered, the Walk and Turn can determine whether a suspect's BAC is at or above 0.10% _____ percent of the time.
5. In the Walk and Turn test, a suspect who steps off the line during the first nine steps and once again during the second nine steps and who raises her arms for balance twice during the second nine steps has produced _____ distinct clue(s).
6. The Walk and Turn may not be reliable when administered to persons who are over _____ years of age or more than _____ pounds overweight.
7. During the _____ stage of the One Leg Stand the suspect must maintain balance for 30 seconds.
8. The One Leg Stand requires that the suspect count out loud from _____ to _____.
9. When properly administered, the One Leg Stand can determine whether a suspect's BAC is at or above 0.10% _____ percent of the time.
10. In the One Leg Stand test, a suspect who sways during the first and middle 10 seconds has produced _____ distinct clue(s).
11. In the One Leg Stand test, a suspect who raises his arms during the first 10 seconds, hops during the first and second 10 seconds, and puts his foot down during the third 10 seconds has produced _____ distinct clue(s).
12. The most clues of Horizontal Gaze Nystagmus that can appear in one eye is _____.
13. When properly administered, the HGN test can determine whether a suspect's BAC is at or above 0.10% _____ percent of the time.
14. The third clue of HGN is an onset of jerkiness with an angle of _____ degrees.

**OVERVIEW OF STANDARDIZED FIELD SOBRIETY TESTING
RESEARCH AND DEVELOPMENT**

1. **First Phase: The Developmental Research**

A. **What were the research objectives?**

- o To evaluate currently used physical coordination tests to determine their relationship to intoxication and driving impairment.
- o To develop more sensitive tests that would provide more reliable evidence of impairment.
- o To standardize the tests and observation.

B. **Who conducted the research?**

Southern California Research Institute (SCRI)

The final report:

Burns, Marcelline and Moskowitz, Herbert
Psychophysical Tests for DWI; June, 1977
NHTSA Report Number DOT HS-802 424
(available from National Technical Information
Service, Springfield, Virginia 22161)

C. **Who were the test subjects?**

They were 238 volunteers, of whom 168 were males and 70 females. They were paid \$3.00 per hour, and they each participated in one testing session.

The volunteers were interviewed by SCRI staff, and on the basis of the interview they were classified as either light, moderate or heavy drinkers. They were randomly assigned to "target BAC" levels appropriate to their classifications. The following shows the distribution of BACs achieved by volunteers:

	<u>Light</u> <u>Drinkers</u>	<u>Moderate</u> <u>Drinkers</u>	<u>Heavy</u> <u>Drinkers</u>	<u>Totals</u>
No Alcohol (0.00%)	26	27	26	79
Approximately 0.05%	36	16	3	55
Approximately 0.075%	—	6	7	13
Approximately 0.10%	—	37	13	50
Approximately 0.15%	—	—	41	41

D. **Who tested the subjects?**

Ten police officers, representing four agencies in the vicinity of Los Angeles, did all of the testing. Each officer examined an average of 23-24 volunteers. While the officer was conducting the examinations, a member of the SCRI staff observed the examinations.

NOTE: Neither the volunteer nor the officer nor the observer knew the volunteer's BAC. Separate members of the SCRI staff handled the dosing and breath testing of volunteers.

E. What tests were administered?

Each volunteer was subjected to six tests:

- o One Leg Stand
- o Finger-To-Nose
- o Finger Count
- o Walk-and-Turn
- o Tracing (a paper-and-pencil exercise)
- o Nystagmus (called "alcohol gaze nystagmus" in the final report)

Each officer was given one day's training in the administration and scoring of these tests prior to conducting the experiment. NOTE: Only two of the ten officers had any prior experience with nystagmus.

F. In general, how were the tests "scored"?

Each of the six tests were "scored" on a scale from 0 to 10; for the nystagmus test, each eye was "scored" independently, so that a subject's total nystagmus "score" could range from 0 to 20.

The higher the "score", the more impaired the subject appeared to be.

Whenever a volunteer was tested, the officer administering the test and the SCRI researcher observing the test independently scored the subject's performance.

G. What were the nystagmus administration and "scoring" procedures?

The volunteer was seated, with his or her chin in a chin rest, and faced a small light bulb mounted on a swing arm that could be moved to precise angles on either side.

The volunteer was instructed to cover the left eye and follow the movement of the light bulb with the right eye. The officer slowly moved the swing arm to the 30-degree mark, and left it there for several seconds, while observing the volunteer's eye for jerking. "Points" were scored as follows:

no jerking	0 point
minimal jerking	2 points
moderate jerking	3 points
distinct, easily observed jerking	5 points

Next, the officer slowly moved the swing arm to the 40-degree mark, and left it there to observe the eye once again. The same scoring system was used. Then, the score for the right eye was determined by adding the scores at the 30-degree and 40-degree marks. For example, if the eye showed minimal jerking at 30 degrees (2 points) but moderate jerking at 40 degrees (3 points), the score for the eye would be 5 points.

Finally, the volunteer was instructed to uncover the left eye and cover the right eye, and the entire procedure was repeated to determine the left eye's "score". NOTE: The scores for the two eyes often were different, by a point or two.

H. What were the administration and "scoring" procedures for Walk-and-Turn?

The volunteer was told to stand facing the examiner (not in a heel-to-toe posture) and to "watch what I do so you will be able to do it the same way. I want you to put one foot here on the line, and then take exactly 9 steps along the line, touching your heel to your toe each step."

(The examiner then demonstrated the heel-to-toe step.)

"Then, turn and take 9 steps back along the line, touching heel-toe. (NOTE: Apparently the examiner did not demonstrate the turn.) Do you understand? Come here to the line and begin."

The officer and observer independently "scored" the volunteer's performance, using the following scheme:

no problem	0 point
falls, won't attempt test, or discontinues test	10 points
slow or minor problem in performing test	1-4 points (examiner's judgment)

Or, the examiner could assign 1 or 2 points for each of the following cues (up to a maximum of 10 points, total, for the test):

- loses balance while walking
- loses balance while turning
- cannot stay on line
- extreme use of arms and/or body to maintain balance
- does not touch heel-toe
- incorrect number of steps
- stops to steady self
- requires repeat of demonstration

I. What were the administration and "scoring" procedures for One-Leg-Stand?

The volunteer was told to "watch what I do but don't begin until I tell you. Stand with your feet together, arms at your side, and hold one leg straight forward, like this."

(At this point, the examiner demonstrated the one-legged stance, holding his or her foot 8-12 inches off the floor.

"Do you understand? Ready? Begin. Don't put your foot down until I tell you to."

NOTE: The subject was not required to count aloud for 30 seconds. Instead, the examiner simply terminated the test after 30 seconds.

The officer and the observer independently "scored" the volunteer's performance, using the following scheme:

no problem	0 point
slightly unsteady	2 points
moderately unsteady	4 points
extremely unsteady	6 points

And, 1 point was added for each of the following, if observed:

- required a repeat of the instructions
- put the foot down
- used arms for balance

If the volunteer fell, or made no attempt to perform the test, or discontinued the test, he or she was "scored" 10 points.

J. What did the researchers learn?

The researchers analyzed their data and found that, using the scores from all six tests, they could correctly classify a volunteer's BAC as being either above or below 0.10% about 83 percent of the time.

Further, the researchers found that this same level of reliability could be achieved just by considering the scores on nystagmus, walk and turn, and one leg stand. In other words, those three tests constituted an 83% reliable battery for distinguishing BACs of 0.10% or more from BACs below 0.10%.

What about the 17% of volunteers whose BACs were misclassified? How did the researchers account for them?

First, half of the volunteers who were misclassified had BACs between 0.08% and 0.12%, a "borderline" range in which it can be very hard to distinguish among slight differences in impairment. Secondly, almost all of the remaining misclassified volunteers were either light drinkers with BACs of at least 0.05% (who may well have appeared and been very impaired at that level); or heavy drinkers with BACs below 0.15% (whose experience with alcohol may have helped them mask the signs of impairment).

K. What was the overall conclusion?

The three-test battery made up of nystagmus, walk and turn, and one leg stand clearly appeared to offer a very reliable field sobriety testing procedure. But these tests were not yet standardized in their final form. That standardization was achieved in the next phase of research.

2. The Second Phase: Initial Validation Research

A. What were the research objectives?

- o To complete the development and validation of the sobriety test battery.
- o To assess in the field the battery's feasibility, and its effectiveness for estimating BAC and facilitating identification of persons with BACs above 0.10%.

B. Who conducted the research?

Southern California Research Institute (SCRI)

The final report:

Tharp, V., Burns, M. and Moskowitz, H.
Development and Field Test of Psychophysical
Tests for DWI Arrest, March, 1981, NHTSA
Report Number DOT HS-805 864 (available from
NTIS, Springfield, Virginia 22161)

C. Who were the test subjects?

During the first (laboratory) portion of this research effort, the test subjects were 296 volunteers, of whom 202 were males and 94 females. In the second (field) portion, the "subjects" were 3128 drivers stopped by participating police officers for traffic law violations and other routine causes. Of these, the officers at least initially suspected 396 might be under the influence of alcohol or other drugs; 215 ultimately were arrested for DWI.

The 296 laboratory subjects each participated in at least one testing session. And, 145 of them returned for a second session, for a total of 441 subject-days of testing. The following table shows the distribution of these subjects by drinker classification and "target BAC"; the numbers in parenthesis refer to the subjects who returned for a second session.

	<u>Light Drinkers</u>	<u>Moderate Drinkers</u>	<u>Heavy Drinkers</u>	<u>Totals</u>
No Alcohol (0.00%)	30 (18)	32 (16)	35 (16)	97 (50)
Approximately (0.05%)	33 (15)	33 (16)	36 (17)	102 (48)
Approximately (0.11%)	—	30 (15)	34 (14)	64 (29)
Approximately (0.15%)	—	—	33 (18)	33 (18)

D. Who tested the subjects?

For the laboratory portion of the study, ten police officers from three agencies in the metropolitan Los Angeles area did the testing. Each officer examined an average of 44 subjects (including returnees). While the officer conducted the examinations, a member of the SCRI staff observed. Neither the volunteer, nor the officer nor the observer knew the volunteer's BAC.

For the field portion of the study, participating officers were drawn from four stations of the Los Angeles County Sheriff's Office. They included a group called the "experimentals" (who received training in the SFSTs), and a group of "controls" (who were not trained until the final stage of the study). Both groups were instructed to complete data forms for all of their traffic stops during the study period; in addition, SCRI researchers periodically rode with every officer to monitor their performance.

E. What tests were administered?

In both the laboratory and field portion of the study, participating officers (except the "controls") administered Horizontal Gaze Nystagmus, Walk and Turn, and One Leg Stand. Some of the officers had some prior experience with these tests, but all received one half day's training in test administration and scoring.

In addition to recording subjects' performance on the SFSTs, the officers attempted to estimate each subject's BAC.

F. How did the officers do in their estimation of subjects' BAC?

In the laboratory portion of the study, the average absolute value in the difference between officers' estimates and subjects' actual BACs (as measured on a breath testing instrument) was 0.03%. The error in the officers' estimates appeared to be random, i.e., their estimates were high about half the time and low about half the time. It should be observed that a laboratory study provides a relatively "easy" context in which to estimate BACs. All participants know (or quickly learn) that the research team will not expose the subjects to very elevated levels (e.g., 0.20% or more), and since the study design is based on fairly precise "target BACs" the subjects tend to "cluster" in the BACs they actually achieve. In other words, it would not be too difficult to make a fairly good educated guess of a subject's BAC if the officer has a reasonable amount of experience in DWI enforcement. Despite the favorable context, the officers' estimates were off by more than 0.03% about half the time.

In the study's field portion, the researchers concluded that most of the officers' estimates of subjects' BACs were invalid. Apparently, most of the participating officers filled out their data forms at the end of their shift, when they already knew the BACs of most arrestees.

G. What were the nystagmus administration and "scoring" procedures?

In the laboratory portion, two kinds of nystagmus measurements were made on each subject. First, the officer examined the subject to: estimate the angle of onset; check for lack of smooth pursuit; and, check for distinct jerking at maximum lateral deviation. These checks were performed in both eyes. Second, the subject was seated at the light bulb/swing arm device used in the previous study, and a measurement of the angle of onset was obtained for each eye. In their previous research, and in their review of studies conducted by other researchers, the SCRI staff found evidence that "a strong correlation exists between the BAC and the angle of onset..." They found that the mathematical expressions of the correlation are slightly different for the left and right eyes, but in either eye an angle of 41 degrees would correspond to a BAC of about 0.10%. They wanted to learn whether officers could estimate onset angles with reasonable precision, and whether the estimate can accurately distinguish subjects above 0.10% from those below that level.

The SCRI researchers did not report the actual data that would compare the officers' onset angle estimates with the swing-arm device measurements of onset angle. Instead, they furnished a list of Pearson Product Moment Correlation Coefficients, for each officer and observer, that express how each officer's estimates "track" with the device measurements. A bit of explanation is needed in order to understand these coefficients.

In general terms, a correlation coefficient expresses the "closeness" of two sets of data. If a change in the value of one item is always associated with a systematic change in the value of the other item, then we can say that the two items are closely correlated. For example, in the summer months, there is probably a pretty close correlation between the highest daytime temperature and the number of people visiting beaches: the higher the temperature (i.e., the hotter it gets), the more people you'll find at beaches (trying to cool down). But if a change in one variable has nothing to do with changes in the other item, then we say that the two items are uncorrelated. For example, the number of people visiting beaches in America on any given day probably has nothing to do with the number of loaves of bread sold in Russia on that same day. Some days, lots of bread will get sold in Russia, and lots of Americans will go swimming. But other days, just as many Russians will buy bread, but quite a different number of Americans will be at the beach. The two items just aren't related. Another common situation occurs when two items are related, but the relationship is not exact. For example, the number of runs a baseball team scores in a game in general probably is related to the number of hits the team makes in the game: in other words, the more hits you get, the more likely you are to score runs. But this relationship is far from perfect: it is quite possible to get very few hits and still score lots of runs, if the other team makes lots of errors or gives up lots of walks. Runs and hits in a game probably are correlated, but the correlation may be weak.

The correlation coefficient gives an indication of the strength or weakness in the relationship between two items. The highest absolute value that the correlation coefficient can have is 1.00, and that occurs when the two items are perfectly correlated. That would mean that, if you know the value of one item you could exactly predict the value of the other item. The lowest absolute value of the correlation coefficient is 0. That occurs when the two items have absolutely nothing in common, i.e., when knowledge of the value of one is of no help at all in predicting the value of the other.

It is important to understand that two items could have a very high correlation without having equal values. Consider the comparison between an officer's onset angle estimations and the device-measured angles. If an officer consistently underestimated the device's angle by 10 degrees, we wouldn't think that the officer was very accurate. That is, if the officer said "35" when the device indicated "45", and said "40" when it indicated "50", and so on, we would consider those to be bad estimates. But the correlation between the officer's estimates and the device's would be perfect, and the correlation coefficient would be 1.00, simply because the relationship between the two variables would be perfectly predictable.

In reporting only the correlation coefficients for the officers' estimates the SCRI researchers aren't describing the officers' accuracy, but only are indicating whether there is some systematic relationship between the measured angles and each officer's estimates of them.

With all that preamble now accomplished, the correlation coefficients for the ten officers' angle estimates ranged from a low of 0.234 to a high of 0.719. Most of these correlations (at least) probably are statistically significant (although the report does not state that), but in practical terms the correlations would be considered weak to moderate. This can be quantified: when the correlation coefficient is squared (i.e., multiplied by itself), the resulting number expresses the percentage of variability in one item that can be related to variability in the other item. In loose terms, it tells us how useful one item is in predicting the value of the other. For example, suppose the correlation coefficient for two items were 0.500. The square of that would be 0.250. That would mean that 25 percent of the variability in one item could be related to the variability of the other, or that one item would be about 25 percent useful in predicting the other.

The best of the ten officers had a correlation coefficient for angle estimations of 0.719. The square of that is .517. That officer's estimates are about 50% useful in predicting the "true" onset angle. The worst-estimating officer had a coefficient of 0.234, which means that his or her estimates are about 5% useful. The average correlation coefficient for the ten officers was 0.475, indicating an average utility of a bit less than 23 percent.

Of course, the ability of officers to estimate onset angle is only part of the story. We also have to consider how well the "true" onset angle can predict BAC. The SCRI researchers report two different correlation coefficients for onset versus BAC, one for the left eye (absolute value of 0.780) and one for the right (absolute value of 0.740). If the higher value is accepted, then the device-measured onset angle is about 60% useful in predicting BAC.

These are not encouraging words for anyone who would claim the ability to use horizontal gaze nystagmus to "predict" BAC. The so-called "true" onset angle is only about 60% useful in predicting BAC. The average officer's estimates are less than 25% useful in predicting onset angle, and even this says nothing about any systematic inaccuracy that may exist in the officer's estimates. At best, one can expect only a 25% chance of reaching something that has a 60% chance of being useful, or overall a 15% chance of getting to anything at all. Given this, it is not surprising that these officer's were off in their estimates of subjects' BACs by an average of 0.03%, despite the favorable estimation conditions of a controlled drinking experiment.

In both the laboratory and field portions of this study, officers were instructed to record the following nystagmus data, for each eye:

- o Whether onset occurred within 45 degrees, with at least 10% of the white of the eye showing;
- o The estimated angle of onset;
- o Whether the eye was unable to follow smoothly;
- o Whether the nystagmus at maximum deviation was absent, minimal, moderate or heavy.

One "point" was "scored" for each eye if onset occurred within 45 degrees; if the eye was unable to follow smoothly; and, if the nystagmus at maximum deviation was moderate or heavy.

H. What were the administration and "scoring" procedures for Walk and Turn?

Based on a review of previous research, the SCRI staff decided to modify the Walk and Turn test to incorporate a divided attention feature. Thus, the subject was instructed at the outset to "assume a heel-to-toe position on the line with your arms at your sides." The officer gave no further instructions until the subject assumed the proper stance. Then, the rest of the instructions were issued, in the same manner that they were given during the previous phase of research.

Walk and Turn "scoring" procedures also were modified, and they were slightly different for the laboratory versus field portions of this study. In the laboratory tests, officers and observers were told to "score" one "point" for each of the following behaviors:

- o cannot keep balance while listening to instructions
- o starts before instructions are finished
- * o keeps balance but does not remember instructions
- o stops while walking to steady self
- o does not touch heel-to-toe while walking
- o loses balance while walking (i.e., steps off line)
- o uses arms for balance
- o loses balance while turning
- o incorrect number of steps

If the laboratory subject was "unable to do the test", the officers and observers were instructed to "score" ten "points".

For the field portion of the study, the item marked above with an asterisk ("keeps balance but does not remember instructions") was dropped, and nine "points" were given for being unable to perform the test. Thus, by the time the field study began, administration and "scoring" procedures for Walk and Turn had evolved to essentially their present state.

I. What were the administration and "scoring" procedures for One Leg Stand?

SCRI researchers decided to add a divided attention feature to this test as well. The subject now was to be instructed to count aloud, "one thousand and one, one thousand and two, . . . , one thousand and thirty". Also, the instructions were modified to call for raising the foot about six inches off the ground, rather than the 8-12 inches specified during the previous research phase.

One Leg Stand "scoring" differed slightly from the laboratory to the field portions of this study. Laboratory subjects were assessed one "point" for each of the following behaviors:

- o Swaying while balancing
- o Uses arms to balance

- o Slightly unsteady
- o Quite unsteady
- o Starts before instructions are finished
- o Puts foot down

If a laboratory subject was unable to do the test or discontinued the test, he or she was to be assessed seven "points".

By the beginning of the field study, SCRI researchers had dropped the two items marked with asterisks, and were assessing five "points" for being unable to perform. Thus, One Leg Stand had evolved very nearly to its present state. Subsequently, NHTSA staff recognized that the scoring factor "quite unsteady" was subjective; based on a re-analysis of the SCRI data, that factor was changed to "hops".

J. What did the researchers learn?

1. The Laboratory Phase

Results of the laboratory study demonstrated that the battery of three tests could be used reliably to distinguish subjects with BACs of 0.10% or more from those with lower BACs. Collectively, the ten officers and two observers were correct in classifying subjects' BACs (above or below 0.10%) about 82% of the time. Subsequent to publication of the SCRI report, NHTSA re-analyzed the laboratory test data and found that the nystagmus test, by itself, could have produced 77% accurate classifications. Similarly, Walk and Turn was capable of 68% unaided accuracy, and One Leg Stand of 65%. NHTSA also found that it would be possible to combine the results of nystagmus and Walk and Turn in a "decision matrix", and achieve 80% accuracy.

2. The Field Phase

SCRI reported a number of problems that plagued the field study, chief among which was a lack of consistency by participating officers in submitting data forms. SCRI concluded that the field test data would not support in-depth statistical analysis, but nevertheless disclosed some favorable trends:

- o after training on the test battery, officers tended to make more DWI arrests; and,
- o trained officers were more accurate in identifying suspects whose BACs are above 0.10%.

The overall conclusion of this study was that the test battery works well. But it remained necessary to conduct a rigorous field test.

3. The Third Phase: Large Scale Field Validation

A. What were the research objectives?

- o To develop standardized, practical and effective procedures for police officers to use in reaching arrest/no arrest decisions;

- o To test the feasibility of the procedures in operational conditions; and,
- o To secure data to determine if the tests will discriminate as well in the field as in the laboratory.

In support of the first of the objectives, the NHTSA research staff began by re-analyzing the SCRI data with a view toward systematizing the administrative and "scoring" procedures for the three tests. The intent was to ensure that the tests would be quick and easy to use; that they could each be used independently of one another, i.e., if the officer elected to use only one or two of the tests; and, that they would maximize the detection of drivers at BACs of 0.10% or more while minimizing the continued investigation of persons below that level.

Essentially, the current administrative and "scoring" procedures, and "scoring" criteria, for the three tests emerged from this re-analysis.

B. Who conducted the research?

The National Highway Traffic Safety Administration (NHTSA)

The final report:

Anderson, T., Schweitz, R., and Snyder, M.
Field Evaluation of a Behavioral Test Battery for DWI
 September, 1983, NHTSA Report Number DOT HS-806 475
 (available from NTIS, Springfield, Virginia 22161)

C. Who were the test subjects?

They were 1,506 drivers stopped for suspicion of DWI during a three-month period during late 1982/early 1983. Of these, approximately 80% were examined using all three tests.

D. Who tested the subjects?

Police officers representing four large agencies in the eastern portion of the country did the testing. All participating officers completed a one day training session prior to the beginning of the study. The training included practice in administering the tests to volunteer drinkers.

E. What tests were administered?

The officers used the three tests that make up the Standardized Field Sobriety Testing battery. As previously noted, not all subjects were exposed to all three tests, primarily because circumstances of the stop location and/or the subject sometimes precluded use of one or two of the tests. But 89% of subjects were examined using the nystagmus test, 84% on Walk and Turn and 82% on One Leg Stand.

F. What were the test administrative and "scoring" procedures?

The procedures followed in using and interpreting the tests were essentially those spelled out in the current NHTSA training program DWI Detection and Standardized Field Sobriety Testing (1987 Update). The tests are "standardized" in the sense that:

- o they are always administered in the same way;
- o the officer administering the tests always looks for a specific set of clues on each test; and,
- o the officer always assesses a subject's performance relative to a specific criterion for each test.

G. What are the "standardized" elements of the Horizontal Gaze Nystagmus test?

1. Standardized Administrative Procedures

- o Hold the stimulus 12-15 inches in front of the subject's face.
- o Keep the tip of the stimulus slightly above the subject's eyes.
- o Always move the stimulus smoothly.
- o Always check for all three clues in both eyes.

NOTE: It does not matter whether you check for the three clues in one eye and then check the other eye, or check the first clue in both eyes, then the second clue in both eyes, etc. Either approach is acceptable as long as you always examine all clues in both eyes.

- o Check the clues in this sequence: lack of smooth pursuit; distinct jerking at maximum deviation; onset within 45 degrees.
- o Always check for each clue at least twice in each eye.

2. Standardized Clues

- o Lack of smooth pursuit.
- o Distinct jerking at maximum deviation.
- o Onset of jerking within 45 degrees.

No other "clues" are recognized by NHTSA as valid indicators of horizontal gaze nystagmus. In particular, NHTSA does not support the allegation that onset angle can reliably be used to estimate BAC, and considers any such estimation to be misuse of the horizontal gaze nystagmus test.

3. Standardized Criterion

The maximum number of clues of horizontal gaze nystagmus that a subject can exhibit is six. That would occur when all three clues are observed in both eyes. If a subject exhibits four or more clues that should be considered evidence that he or she is under the influence.

H. What are the "standardized" elements of Walk and Turn?

1. Standardized Administrative Procedures

- o Always begin by having the subject assume the heel-toe stance.**
- o Verify that the subject understand that the stance is to be maintained while the instructions are given.**
- o If the subject breaks away from the stance as the instructions are given, cease giving instructions until the stance is resumed.**
- o Tell the subject that he or she will be required to take 9 heel-to-toe steps down the line, to turn, and to take 9 heel-to-toe steps up the line.**
- o Demonstrate several heel-toe steps.**
- o Demonstrate the turn.**
- o Tell the subject to keep the arms at the sides, to watch the feet, to count the steps aloud, and not to stop walking until the test is completed.**
- o Ask the subject whether he or she understands; if not, re-explain whatever the subject doesn't understand.**
- o Tell the subject to begin.**
- o If the subject staggers or stops, allow him or her to resume from the point of interruption; do not require the subject to start over from the beginning.**

2. Standardized Clues

- o Loses balance during the instructions (i.e., breaks away from the heel-toe stance).**
- o Starts walking too soon.**
- o Stops while walking.**
- o Misses heel-to-toe while walking (i.e., misses by at least one-half inch).**
- o Raises arms from side while walking (by six inches or more).**
- o Steps off the line.**
- o Turns improperly.**
- o Takes the wrong number of steps.**

These eight are the only validated clues of Walk and Turn. However, officers may see or hear other noteworthy evidence while the subject is performing this test, and officers should include any such observations in their reports.

Officers should note in their reports how many times each of the eight clues appears. However, for purposes of applying the standardized criterion (discussed below), a clue should be "counted" only once, even if it appears more than once.

If the subject cannot perform or complete the test, it should be considered that he or she has exhibited nine clues. One situation that would warrant this is if the subject steps off the line three or more times.

3. Standardized Criterion

If a subject exhibits at least two clues on Walk and Turn, it should be considered evidence that he or she is under the influence.

I. What are the "standardized" elements of One Leg Stand?

1. Standardized Administration Procedures

- o Tell the subject to stand with heels together, and arms at sides.
- o Tell the subject not to start the test until you say to do so.
- o Ask the subject whether he or she understands.
- o Tell the subject he or she will have to stand on one foot, with the other foot about six inches off the ground.
- o Demonstrate the stance.
- o Tell the subject to count from 1 to 30, by thousands.
- o Demonstrate the count, for several seconds.
- o Ask the subject whether he or she understands; if not, re-explain whatever is not understood.
- o Tell the subject to begin.
- o If the subject stops or puts the foot down, allow him or her to resume at the point of interruption; do not require the count to begin again at "one thousand and one".

2. Standardized Clues

- o Sways
- o Puts foot down
- o Hops
- o Raises arms from side (six inches or more)

These are the only four validated clues of One Leg Stand. However, officers may see or hear other noteworthy evidence while this test is being performed, and should include any such evidence in their reports.

If the subject cannot perform or complete the test, it should be considered that he or she has exhibited five clues. One event that would warrant this is if the subject puts the foot down three or more times.

3. Standardized Criterion

If the subject exhibits two or more clues on One Leg Stand, it should be considered evidence that he or she is under the influence. As with Walk and Turn, clues should be counted only once in applying this criterion.

J. What did the researchers learn?

The three standardized tests were found to be highly reliable in identifying subjects whose BACs were 0.10% or more. Considered individually, the nystagmus test was the most accurate of the three: among subjects who exhibited four or more clues, 82% had BACs of 0.10% or higher; but the other two tests were nearly as accurate (80% for Walk and Turn, 78% for One Leg Stand). When the nystagmus and Walk and Turn results were jointly interpreted using the decision table, they proved capable of correctly classifying 83% of subjects.

The importance of this large scale field validation study deserves to be emphasized. It was the first significant assessment of the "workability" of the standardized tests under actual enforcement conditions, and it was the first time that completely objective clues and scoring criteria had been defined for the tests. The results of the study unmistakably validated the SFSTs.

But it is also necessary to emphasize one final and major point: this validation applies only when the tests are administered in the prescribed, standardized fashion; and only when the standardized clues are used to assess the subject's performance; and, only when the standardized criteria are employed to interpret that performance. If any of the standardized elements of the tests is changed, their validity will be threatened.

SESSION IX
TEST BATTERY DEMONSTRATIONS

SESSION IX

TEST BATTERY DEMONSTRATIONS

Upon successfully completing this session, the participant will be able to:

- o Demonstrate the appropriate administrative procedures for the Standardized Field Sobriety Testing Battery.

CONTENT SEGMENTS

- A. Live Classroom Demonstrations
- B. Video Tape Demonstration

LEARNING ACTIVITIES

- o Instructor-Led Demonstration
- o Participant Demonstration
- o Video Tape Presentation

TEST BATTERY DEMONSTRATIONS

In this session, you will have the opportunity to observe several demonstrations of the three standardized field sobriety tests. Your instructors will conduct some of these demonstrations. Other demonstrations will be provided on video tape.

SESSION X
"DRY RUN" PRACTICE SESSION

2024年12月

2024年12月

SESSION X

"DRY RUN" PRACTICE SESSION

Upon successfully completing this session, the participant will be able to:

- o Demonstrate the proper administration of the three Standardized Field Sobriety Tests.

CONTENT SEGMENTS

- A. Procedures and Group Assignments
- B. Hands On Practice

LEARNING ACTIVITIES

- o Instructor-Led Presentation
- o Participant Practice Session

THE STATE OF TEXAS

COUNTY OF DALLAS

Know all men by these presents, that I, the undersigned, do hereby certify that the within and foregoing is a true and correct copy of the original as the same appears from the records of the County of Dallas, State of Texas.

WITNESSED my hand and seal of office this 10th day of _____ 19__.

County Clerk

Notary Public in and for the State of Texas

My commission expires this _____ day of _____ 19__.

Notary Public

Notary Public

"DRY RUN" PRACTICE SESSION

In this session, you will work with other students, taking turns practicing administering the standardized field sobriety tests to each other. When you are not administering a test or serving as the test subject, you will be expected to observe the test administrator and subsequently help critique his or her performance.

The Student Performance Checklist (shown on the next two pages) should be used to help you monitor a fellow student's performance as a test administrator.

RESEARCH REPORT

The first part of the report discusses the general situation of the country and the position of the government. It also mentions the results of the recent elections and the formation of the new cabinet.

The second part of the report deals with the economic situation of the country. It mentions the growth of the economy and the measures taken by the government to improve the living standards of the population.

STUDENT PERFORMANCE CHECKLIST

IMPROVED SOBRIETY TESTS BATTERY

Student Name: _____ Date: _____

I. HORIZONTAL GAZE NYSTAGMUS

- _____ 1. Asks if subject is wearing contact lenses.
- _____ 2. Object held in proper position (15" from nose, just above eye level).
- _____ 3. Check equal tracking.
- _____ 4. Check pupil size.
- _____ 5. Smooth movement from center of nose to maximum deviation in 2 seconds and then back to center. (Repeat at least 2 times). Check left eye, then right eye.
- _____ 6. Eye held at maximum deviation for a few seconds (no white showing). Check left eye, then right eye.
- _____ 7. Eye moved slowly (4 sec.) from center to 45 angle. Check left eye, then right eye.
- _____ 8. Check for vertical nystagmus.

II. WALK AND TURN

- _____ 1. Instructions given from a safe position.
- _____ 2. Subject told to place feet on line in heel-to-toe manner with arms at sides and gives demonstration.
- _____ 3. Subject told not to begin test until instructed to do so and asked if he/she understands.
- _____ 4. Tells subject to take nine heel-to-toe steps and demonstrates.
- _____ 5. Explains and demonstrates turning procedure.
- _____ 6. Tells subject to return with nine heel-to-toe steps.
- _____ 7. Subject told to count steps out loud.
- _____ 8. Tells subject to look at feet while counting.
- _____ 9. Tells subject not to raise arms from sides.

- _____ 10. Subject told not to stop once he/she begins.
- _____ 11. Asks subject if all instructions are understood.
- _____ 12. Properly scores test.

III. ONE LEG STAND

- _____ 1. Instructions given from a safe position.
- _____ 2. Subject told to stand straight, place feet together, and hold arms at sides.
- _____ 3. Subject told not to begin test until instructed to do so and asked if he/she understands.
- _____ 4. Tells subject to raise either leg 6" from ground while holding other leg stiff and gives demonstration.
- _____ 5. Subject told to keep eyes on elevated leg.
- _____ 6. Tells subject to count to 30 by thousands and gives demonstration.
- _____ 7. Checks actual time subject holds leg up.
- _____ 8. Properly scores test.

Instructor: _____

SESSION XI

"DRINKING SUBJECTS" PRACTICE: FIRST SESSION

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Main body of faint, illegible text, appearing to be several lines of a document or letter.

SESSION XI

"DRINKING SUBJECTS" PRACTICE: FIRST SESSION

Upon successfully completing this session, the participant will be able to:

- o Properly administer the standardized FST's.
- o Properly observe and record suspect's performance utilizing the standard notetaking guide.

CONTENT SEGMENTS

- A. Procedures
- B. Hands On Practice
- C. Session Wrap-Up

LEARNING ACTIVITIES

- o Instructor-Led Presentation
- o Student Practice Session
- o Instructor-Led Discussion

CONFIDENTIAL - SECURITY INFORMATION

TO: DIRECTOR, CENTRAL INTELLIGENCE AGENCY

FROM: SAC, [Redacted]

SUBJECT: [Redacted]

[Redacted]

[Redacted]

"DRINKING SUBJECTS" PRACTICE: FIRST SESSION

During this session, you will work with several other students to administer standardized field sobriety tests to volunteers who have consumed alcoholic beverages. Some of these volunteers will have blood alcohol concentrations above 0.10%. Others will have BACs below that level. You will carefully note and record the volunteers' performance, and attempt to distinguish the "0.10% and above" volunteers from the "below 0.10%" volunteers.

**STUDENT PERFORMANCE CHECKLIST
IMPROVED SOBRIETY TESTS BATTERY**

Student Name: _____ Date: _____

I. HORIZONTAL GAZE NYSTAGMUS

- _____ 1. Asks if subject is wearing contact lenses.
- _____ 2. Object held in proper position (15" from nose, just above eye level).
- _____ 3. Check equal tracking.
- _____ 4. Check pupil size.
- _____ 5. Smooth movement from center of nose to maximum deviation in 2 seconds and then back to center. (Repeat at least 2 times). Check left eye, then right eye.
- _____ 6. Eye held at maximum deviation for four seconds (no white showing). Check left eye, then right eye.
- _____ 7. Eye moved slowly (4 sec.) from center to 45 angle. Check left eye, then right eye.
- _____ 8. Check for vertical nystagmus.

II. WALK AND TURN

- _____ 1. Instructions given from a safe position.
- _____ 2. Tells subject to place feet on line in heel-to-toe manner (left foot behind right foot) with arms at sides and gives demonstration.
- _____ 3. Tells subject not to begin test until instructed to do so and asks if he/she understands.
- _____ 4. Tells subject to take nine heel-to-toe steps and demonstrates.
- _____ 5. Explains and demonstrates turning procedure.
- _____ 6. Tells subject to return with nine heel-to-toe steps.
- _____ 7. Tells subject to count steps out loud.
- _____ 8. Tells subject to look at feet while counting.
- _____ 9. Tells subject not to raise arms from sides.
- _____ 10. Tells subject not to stop once he/she begins.
- _____ 11. Asks subject if all instructions are understood.

III. ONE LEG STAND

- _____ 1. Instructions given from a safe position.
- _____ 2. Tells subject to stand straight, place feet together, and hold arms at sides.
- _____ 3. Tells subject not to begin test until instructed to do so and asked if he/she understands.
- _____ 4. Tells subject to raise either leg 6" from ground while holding other leg stiff and gives demonstration.
- _____ 5. Tells subject to keep toes pointed ahead and to keep eyes on elevated foot.
- _____ 6. Tells subject to count to 30 by thousands and gives demonstration.
- _____ 7. Checks actual time subject holds leg up.

Instructor: _____

1. Introduction	1
2. Objectives	2
3. Methodology	3
4. Results	4
5. Discussion	5
6. Conclusion	6
7. References	7
8. Appendix	8
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DWI INVESTIGATION FIELD NOTES

NAME _____ SEX _____ RACE _____
 ADDRESS _____ CITY/STATE _____ OP. LIC. NO. _____
 D.O.B. ____/____/____ SOC. SEC. # _____
 VEHICLE MAKE _____ YEAR _____ LIC. _____ STATE _____
 DISPOSITION _____ NO. PASSENGERS _____

INCIDENT LOCATION _____
 DATE ____/____/____ TIME _____ ACCIDENT YES NO

II VEHICLE IN MOTION

INITIAL OBSERVATIONS _____

OBSERVATION OF STOP _____

IV PRE - ARREST SCREENING

HORIZONTAL GAZE NYSTAGMUS

NOTE: SUSPECT WEARING CONTACTS?
 NO YES HARD SOFT

- EYE DOES NOT PURSUE SMOOTHLY _____
- DISTINCT NYSTAGMUS AT MAXIMUM DEVIATION _____
- NYSTAGMUS ONSET BEFORE 45 DEGREES _____

	LEFT	RIGHT

OTHER: _____

III PERSONAL CONTACT

OBSERVATION OF DRIVER _____

STATEMENTS _____

PRE-EXIT SOBRIETY TESTS _____

OBSERVATION OF THE EXIT _____

ODORS _____

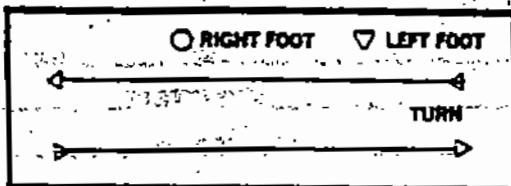
IV PRE-ARREST SCREENING (CONTINUED)

WALK AND TURN

INSTRUCTIONS STAGE

CANNOT KEEP BALANCE

STARTS TOO SOON



WALKING STAGE

STOPS WALKING
MISSES HEEL-TOE
STEPS OFF LINE
RAISES ARMS
ACTUAL STEPS TAKEN

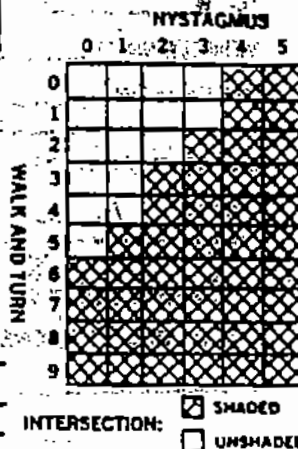
FIRST NINE STEPS

SECOND NINE STEPS

THE TURN (DESCRIBE) _____

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____



ONE LEG STAND

SWAYS
RAISES ARMS
HOPS
FOOT DOWN

0 TO 10 SEC'S	11 to 20 SEC'S	21 to 30 SEC'S

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

PBT

OTHER FIELD SOBRIETY TESTS

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

PHYSICAL EVIDENCE _____

V GENERAL OBSERVATIONS

SPEECH _____

ATTITUDE _____

CLOTHING _____

OTHER _____

SESSION XII
PROCESSING THE ARRESTED SUSPECT
AND
PREPARATION FOR TRIAL

1912-13

1912-13

1912

1912-13

SESSION XII

PROCESSING THE ARRESTED SUSPECT AND PREPARATION FOR TRIAL

Upon successfully completing this session, the participant will be able to:

- o Discuss the importance of correct processing and report writing procedures in DWI arrests.
- o Discuss the correct sequence of DWI suspect processing procedures.
- o Discuss the essential elements of the DWI arrest report.
- o Discuss the importance of pretrial conferences and presentation of evidence in the DWI trial.

CONTENT SEGMENTS

- A. The Processing Phase
- B. Preparing the DWI Arrest Report: Documenting The Evidence
- C. Narrative DWI Arrest Report
- D. Case Preparation and Pretrial Conference
- E. Guidelines for Direct Testimony

LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Video-Tape Presentations
- o Interactive Discussion

The following information was obtained from the records of the
 Department of Health and Human Services, Office of the
 Inspector General, Washington, D.C., on the subject of
 the above-captioned case. The information was obtained
 from the records of the Department of Health and Human
 Services, Office of the Inspector General, Washington, D.C.,
 on the subject of the above-captioned case. The information
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 and Human Services, Office of the Inspector General,
 Washington, D.C., on the subject of the above-captioned
 case.

PROCESSING THE ARRESTED SUSPECT AND PREPARATION FOR TRIAL

The successful prosecution of a DWI case is dependent upon the officer's ability to organize and present all relevant evidence of each element of the DWI violation. The officer must keep in mind that virtually all of this evidence must be compiled during the three phases of detection — vehicle in motion, personal, and pre-arrest screening. The officer must be able to establish the level of impairment at the time that the violation occurred; therefore, his or her observations are of critical importance. Subsequent evidence of impairment, such as the evidential chemical test result(s) and/or the evidence gathered during a drug evaluation, will be admissible only when a proper arrest has been made. The efforts expended in detecting, apprehending, investigating and testing/evaluating the DWI violator will be of little value if there is not sufficient evidence to prove each and every element of the violation.

Accordingly, if the evidence is not presented clearly and convincingly in court, the case may be lost, no matter how good that evidence may be. Therefore, it is essential that officers develop the ability to write a clear and concise report containing their observations and the results of their investigation for presentation to the prosecutor.

What is evidence? Evidence is any means by which some alleged fact that has been submitted to investigation may either be established or disproved. Evidence of a DWI violation may be of various types:

- a. Physical (or real) evidence: something tangible, visible, audible (e.g. a blood sample or a partially empty can of beer).
- b. Well-established facts (e.g. judicial notice of accuracy of the breath test device when proper procedures are followed).
- c. Demonstrative evidence: demonstrations performed in courtroom (e.g. field sobriety tests).
- d. Written matter of documentation (e.g. the citation, the alcohol influence report, the drug evaluation report, evidential chemical test results, etc.).
- e. Testimony (the officer's verbal description of what he saw, heard, smelled, etc.).

The prosecutor must be able to establish that the defendant was driving or operating a motor vehicle on a highway or within the state while under the influence of alcohol or drugs or with an excessive BAC level. The prosecutor also must establish that the proper procedures were followed:

- a. That there were reasonable grounds for arrest.
 1. That the accused was in fact the driver/operator of the motor vehicle.
 2. That there were grounds for stopping/contacting the accused.
 3. That there was probable cause to believe that the accused was under the influence, or intoxicated.

- b. That proper arrest procedures were followed.
- c. That proper and due regard was taken of the suspect's rights.
- d. That subsequent observation and interrogation of the suspect provided additional evidence relevant to the alleged offense.
- e. That there was a proper request for the suspect to submit to the chemical test.
- f. If drugs other than alcohol are involved, the prosecutor also must establish that there were grounds to request a drug evaluation and:
 - 1. That the evaluation was properly administered.
 - 2. That the results establish that the cause of impairment was a drug or drugs other than alcohol or in combination with alcohol.
 - 3. That there was a proper request for the suspect to submit to an additional evidential chemical test.

The prosecutor's case will largely be based upon the officer's investigation, and in particular on his or her arrest report.

While it is true that many items which are critical to the prosecution are documented on special forms, the officer must keep in mind that the prosecutor may not have the time to search out relevant facts. He may decide to amend or reduce or even dismiss the case on the basis of the arrest report alone.

It is, therefore, essential that the report clearly and accurately describe the total sequence of events from the point the subject was first observed, through the arrest, the drug evaluation (if conducted), and subsequent release or incarceration.

Guidelines for notetaking

One of the most critical tasks in the DWI enforcement process is the recognition and retention of facts and cues that establish probable cause to stop, investigate and subsequently arrest persons suspected of driving or operating a vehicle while under the influence of alcohol and/or drugs. The evidence gathered during the detection process must establish the elements of the violation, and must be documented to support successful prosecution of the violator. This evidence is largely sensory (see-smell-hear) in nature, and therefore is extremely short-lived.

Police officers must be able to recognize and act on the facts and circumstances with which they are confronted. But the officer also must be able to recall those observations, and describe them clearly and convincingly, to secure a conviction. The officer is inundated with evidence of DWI, sights, sounds, smells, etc., and the officer recognizes it, sometimes subconsciously, and bases the decision to stop, investigate and ultimately arrest on it.

Since evidence of a DWI violation is short-lived, police officers need a system and tools for recording field notes at scenes of DWI investigations. Technological advances have made it possible to use audio tape recorders and video tape recorders in the field and they provide an excellent means of documenting this short-lived evidence. However, the vast majority of officers must rely on their own field notes.

One way of improving the effectiveness of field notes is to use a structured notetaking guide. This type of form makes it very easy to record brief "notes" on each step of the detection process, and ensures that vital evidence is documented. The field notes provide the information necessary for completion of required DWI report forms and assist the officer in preparing a written account of the incident. The field notes will also be useful if the officer is required to provide oral testimony, since they can be used to refresh the officer's memory.

A model note-taking guide has been developed for use in the basic course. DWI Detection and Standardized Field Sobriety Testing course (see attached copy).

Section I provides space to record basic information describing the suspect, the vehicle, the location, and the date and time the incident occurred.

Section II provides space to record brief descriptions of the vehicle in motion (Detection Phase One), including initial observation of the vehicle in operation, and observation of the stopping sequence.

Section III provides space to record brief descriptions of the personal contact with the suspect (Detection Phase Two), including observation of the driver, statements or responses made by the driver or passengers, the results of any pre-exit sobriety tests, observation of the driver exiting the vehicle, and any odors that may be present.

Section IV provides space to record the results of all field sobriety tests that were administered, and the results of the preliminary breath test (PBT) if such test was given.

Section V provides space to record the officer's general observations, such as the suspect's manner of speech, attitude, clothing, etc. Any physical evidence collected should also be noted in this section.

The Processing Phase

The Processing Phase of a DWI Enforcement incident is the bridge between arrest and conviction of a DWI offender. Processing involves the assembly and organization of all of the evidence obtained during the detection phase, to ensure that the evidence will be available and admissible in court. Processing also involves obtaining additional evidence, such as a scientific chemical test or tests of the suspect's breath, blood, etc.

Typically, the processing phase may involve the following tasks:

- o Inform the offender that he or she is under arrest.
- o "Pat-down" or frisk the offender.
- o Handcuff the offender.
- o Secure the offender in the patrol vehicle.
- o Secure the offender's vehicle, passengers, property.
- o Transport the offender to an appropriate facility.
- o (If applicable) arrange for video taping.

- o Advise offender of rights and obligations under the Implied Consent Law.
- o Administer the evidential chemical test(s).
- o Advise the offender of his or her Constitutional Rights (Miranda Admonition).
- o Interview the offender.
- o Incarcerate or release the offender.
- o Complete the required reports.

Guidelines for writing the narrative report

Report writing is an essential skill for a police officer. Good report writing becomes second nature with practice. While there is no one best way to write an arrest report, it is helpful to follow a simple format. Naturally you should be guided by your departmental policies and/or special instructions or requirements of the prosecutor.

Detection and arrest:

During the detection phase of the DWI arrest process, the arresting officer must mentally note relevant facts to support his or her decision to arrest.

These facts are then recorded in the form of field notes and are used to jog his or her memory when the formal arrest report is prepared.

The following block outline format identifies some of the essential ingredients in a DWI offense (arrest) report:

- o Initial Observations - Describe your first observations of the subject and his or her actions. What drew your attention to him? Your first observations are important. Be sure to record the time and location of the first event.
- o Vehicle Stop - Record any unusual actions taken by the subject. How did the subject react to the emergency light and/or siren? Did he/she stop in a normal fashion? Be specific.
- o Contact Driver - Record your observations of the subject's personal appearance, condition of the eyes, speech, etc. Record the name and number of passengers in the vehicle and where they sat. Describe any unusual actions taken by the subject.
- o Driving or Actual Physical Control - In some cases, you may not use the subject's driving behavior as the basis for contact with him/her. Your first contact could result from an accident investigation or a motorist assistance type of contact. Your observations and documentation must establish that the subject was driving or in actual physical control of the vehicle.
- o Field Sobriety Tests - Describe the subject's actions when you administered the field sobriety tests. Be specific.
- o Arrest - Document the arrest decision and ensure that all elements of the violation have been accurately described.

- o Disposition/Location of Vehicle and Keys - Indicate where the vehicle was secured or towed and the location of the keys. If the vehicle was released to another party or was driven by a back-up officer, record that fact.
- o Disposition of Passenger and/or Property - Ensure that passengers and property are properly cared for.
- o Transportation - Describe where the subject was transported for evidential testing. Document time of departure and arrival. (This information can be obtained for the radio log). Note any spontaneous comments made by the offender.
- o Evidential Test - Document which test(s) were administered and by whom. Be sure to include the evidential test(s).
- o Implied Consent/Miranda Warning - Document that the admonishments were given at the appropriate point in the investigation.
- o Witness Statements - List all witnesses and attach copies of their statements.
- o Notification of Offender's Attorney or Other Party - Document the time and result of subject's telephone call to an attorney or other party.
- o Citation/Complaint - Document that the traffic citation/complaint was issued at the appropriate time if applicable.
- o Incarceration or Release - Document the time and place of incarceration or the name and address of the responsible party to whom the offender was released. Be sure to record the time.
- o Additional Chemical Test - If the subject is authorized to request additional chemical tests and does so, record the type of test, time administered, location, and party administering the test.

The foregoing list is not intended to be all inclusive. In many cases, several points will not be needed.

The narrative does not have to be lengthy, but it must be accurate. Remember, successful prosecution depends on your ability to describe the events you observed. Often a trial can be avoided (i.e., an offender may plead guilty) when you do a good job in preparing your arrest report.

A sample report providing an example of the block outline format is attached.

Case Preparation and Pretrial Conference

Case preparation begins with your first observation and contact with the suspect. It is essential that all relevant facts and evidence are mentally noted and later documented in field notes or other official forms.

Guidelines for case preparation:

- o Use field notes to document evidence.
- o Accurately note statements and other observations.
- o Review the case with other officers who witnessed the arrest or otherwise assisted you and note relevant facts.
- o Collect and preserve all physical evidence.
- o Prepare all required documents and a narrative report.

Remember, it is essential that all reports are complimentary. If differences occur, be sure to adequately explain them. The defense will try to impeach your testimony with seemingly minor inconsistencies.

Preparation for trial:

Upon receipt of a subpoena or other notification of a trial date, review all records and reports to refresh your memory. If appropriate, revisit the scene of the arrest. Compare notes with assisting officers to ensure that all facts are clear.

During discovery, list all evidence and properly document it. Remember, evidence may be excluded if proper procedures are not followed.

Exactness and attention to detail are very important.

Pretrial conference:

Successful prosecution is dependent upon the prosecutor's ability to present a clear and convincing case based on your testimony, physical evidence, and supporting evidence/testimony from other witnesses and experts.

If at all possible, try to arrange a pretrial conference with the prosecutor. Review with the prosecutor all evidence and all basis for your conclusions. If there are weak points in your case, bring them to the prosecutor's attention. Ask the prosecutor to review the questions he or she intends to ask you on the witness stand. Point out when you do not know the answer to a question. Ask the prosecutor to review questions and tactics that he or she anticipates the defense attorney may use. Make sure your resume is current. Review your credentials and qualifications with the prosecutor.

If you cannot have a pretrial conference, try to identify the main points about the case, and be sure to discuss these with the prosecutor during the few minutes you will have just before the trial.

Guidelines for direct testimony.

Your basic task is to establish the facts of the case: that the suspect was driving or in actual physical control of a vehicle, on a highway or other specified location, within the court's jurisdiction, and was under the influence of alcohol, or drugs or some combination thereof. In other words, to present evidence to establish probable cause for the arrest and conclusive evidence that the violation in fact was committed.

Describe in a clear and convincing manner all relevant observations during the three detection phases and those subsequent to the arrest. When you testify about the suspect's performance of the standardized field sobriety tests, do not use the terms "pass" or "fail". Also, do not refer to the suspect's "score" on the test or the number of "points" he or she produced. Instead, describe clearly and explicitly how the suspect performed (e.g., "stepped off the line twice, raised the arms three times, etc."). By presenting your observations clearly and convincingly, you will allow the fact of the suspect's impairment to speak for itself.

Always keep in mind that juries typically focus on an officer's demeanor as much or more than on the content of his or her testimony. Strive to maintain your professionalism and impartiality. Be clear in your testimony: explain technical terms in layman's language; don't use jargon, abbreviations, acronyms, etc. Be polite and courteous. Do not become agitated as a result of questions by the defense. Above all, if you don't know the answer to a question, say so. Don't guess at answers, or compromise your honesty in any way. Be professional and present evidence in a fair and impartial manner.

Typical defense tactics:

In many cases, you will be the key witness for the prosecution. Therefore, the defense will try very hard to cast doubt on your testimony.

The defense may ask some questions to challenge your observations and interpretations. For example, you may be asked whether the signs, symptoms and behaviors you observed in the suspect couldn't have been caused by an injury or illness, or by something other than the alcohol/drugs you concluded were present. You may also be asked questions whose purpose is to make it appear that you weren't really certain that you actually saw what you say you saw. Answer these questions honestly, but carefully. If your observations are not consistent with what an illness or injury would produce, explain why not. Make it clear that your conclusions about alcohol/drug influence are based on interpretation of the observed facts.

The defense may also ask some questions to challenge your credentials. These questions may try to disparage or deprecate the formal training you have had. There may also be an attempt to ask questions to "trip you up" on technical/scientific issues, to make it appear that you are less knowledgeable than you should be or claim to be. Stick to absolute honesty. Answer all questions about your training fully and accurately, but don't embellish. Don't try to make the training appear to have been more elaborate or extensive than it really was. Answer scientific/technical questions if you know the answer. Otherwise, admit that you don't know. Don't try to fake or guess the answers.

And, the defense may ask questions to challenge your credibility. You may be asked several very similar questions, in the hope that your answers will be inconsistent. You may be asked questions whose purpose is to show that you had already formed your opinion well before the suspect completed the field sobriety tests. And, you may be asked questions that try to suggest that you eliminated portions of the tests or only gave incomplete or confusing instructions. Guard against these kinds of defense challenges by always performing complete, standardized field sobriety tests, exactly as you have been taught. Standardization will ensure both consistency and credibility.

DWI INVESTIGATION FIELD NOTES

NAME _____ SEX _____ RACE _____
ADDRESS _____ CITY/STATE _____ OP. LIC. NO. _____
D.O.B. ____/____/____ SOC. SEC. # _____
VEHICLE MAKE _____ YEAR _____ LIC. _____ STATE _____
DISPOSITION _____ NO. PASSENGERS _____

INCIDENT LOCATION _____
DATE: ____/____/____ TIME _____ ACCIDENT YES NO

II VEHICLE IN MOTION

INITIAL OBSERVATIONS _____

OBSERVATION OF STOP _____

III PERSONAL CONTACT

OBSERVATION OF DRIVER _____

STATEMENTS _____

PRE-EXIT SOBRIETY TESTS _____

OBSERVATION OF THE EXIT _____

ODORS _____

IV PRE - ARREST SCREENING

HORIZONTAL GAZE NYSTAGMUS

NOTE: SUSPECT WEARING CONTACTS?
NO YES HARD

- EYE DOES NOT PURSUE SMOOTHLY
- DISTINCT NYSTAGMUS AT MAXIMUM DEVIATION
- NYSTAGMUS ONSET BEFORE 45 DEGREES

	LEFT	RIGHT
_____	_____	_____
_____	_____	_____
_____	_____	_____

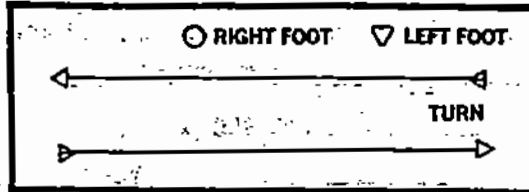
OTHER: _____
HS 178 5/87 YTT-9

IV PRE-ARREST SCREENING (CONTINUED)

WALK AND TURN

INSTRUCTIONS STAGE

CANNOT KEEP BALANCE
 STARTS TOO SOON



WALKING STAGE

STOPS WALKING
 MISSES HEEL - TOE
 STEPS OFF LINE
 RAISES ARMS
 ACTUAL STEPS TAKEN

FIRST NINE STEPS

SECOND NINE STEPS

THE TURN (DESCRIBE) _____

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

NYSTAGMUS

	0	1	2	3	4
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					

WALK AND TURN

INTERSECTION: SHADED UNSHADED

ONE LEG STAND

SWAYS _____
 RAISES ARMS _____
 HOPS _____
 FOOT DOWN _____

	0 TO 10 SEC'S	11 to 20 SEC'S	21 to 30 SEC'S
SWAYS			
RAISES ARMS			
HOPS			
FOOT DOWN			

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

PBT

OTHER FIELD SOBRIETY TESTS

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

PHYSICAL EVIDENCE _____

V GENERAL OBSERVATIONS

SPEECH _____

ATTITUDE _____

CLOTHING _____

OTHER _____

DWI INCIDENT REPORT

#16347

Defendant: Mary Katherine Webster
Age: 24
Date of Arrest: 4-14-XX
Time of Arrest: 4:00 pm

Initial Observation:

At approximately 3:56 pm Sgt. Tower and Trooper Pang were observing traffic at the intersection of Druid Lake Drive and Park Height's Avenue. The defendant, a white female, was driving a silver Jeep NB on Druid Lake Drive approaching Park Height's Avenue. The defendant did not reduce speed as she approached the intersection and failed to stop for a solid red traffic signal facing her lane. The defendant made a wide left turn onto Park Height's Avenue and accelerated.

There were two male and two female occupants in the Jeep. The occupants were loud and boisterous and the radio was playing loudly.

Park Height's Avenue is a two-lane roadway with one lane in each direction. Traffic was heavy. A light rain was falling.

Pursuit:

Sgt. Tower immediately pursued the jeep. After the jeep completed the turn a male passenger in the right front seat threw a can (later determined to be a beer can) at and struck a large yellow traffic control sign. As the jeep continued westbound, Sgt. Tower observed the brake lights flicker momentarily and the vehicle lurched slightly as if driver was having difficulty changing gears.

The Jeep drifted to the left toward the center line and the left wheels actually touched the center line. At that point, the Jeep suddenly swerved to the right as a pick up truck approached in the eastbound lane.

The Jeep drifted toward the center line, then to the right, again to the center and once more to the right. The Jeep stayed within the lane and did not cross the center line or run off the right edge of the road.

Sgt. Tower followed the Jeep for approximately 3/4 mile before activating the red lights to find a suitable stopping location.

Vehicle Stop

The Jeep slowly pulled to the right shoulder and continued moving at approximately 10 mph. At that point Sgt. Tower activated the siren. The Jeep traveled approximately 200 ft. before coming to a complete stop.

Contact With Driver:

Sgt. Tower approached the driver's side of the vehicle and Trooper Pang remained in the area of the right rear side. Sgt. Tower asked the driver to produce both her driver's license and the vehicle registration. The driver produced both documents, but appeared nervous and uneasy. She was identified as Mary K. Webster from her drivers license. Sgt. Tower asked her a series of brief questions:

1. What is your middle name? A = Katherine
2. Without looking at your watch, what time is it? A = 4:30 (Actual time approximately 4:00)
3. Can you tell me your date of birth? The month and the day? A = 7-8-24.

Sgt. Tower then demonstrated and asked her to perform simple dexterity tests.

1. Finger count with thumb touching fingers on same hand. 1-2-3-4, 4-3 (hesitated) 2-1.
2. Alphabet E-P, correctly done.
3. Count backwards 67-54. She stopped at 60 to tell the occupants of the Jeep to "shut up". She seemed confused on where to start again after being asked to resume the count, Sgt. Tower reminded her where she left off. She then completed the count.

Sgt. Tower asked Ms. Webster if she had been drinking. She responded "YES". During this interview, Sgt. Tower detected a moderate odor of an alcoholic beverage on her breath, her eyes were bloodshot. She continued to appear nervous and unsure of herself.

The passengers were rowdy and abusive throughout the contact. The driver asked them to be quiet several times and at one point she told them to "shut up".

Sgt. Tower asked Ms. Webster to step out of the Jeep to perform field sobriety tests. She agreed to do so voluntarily. As she stepped out and walked to the sidewalk at the rear of the Jeep, her balance appeared unsteady and she used her left hand to balance on the Jeep.

Field Sobriety Tests:

Sgt. Tower first administered the Horizontal Gaze Nystagmus test. The right eye was tested first and then the left. Sgt. Tower observed a lack of smooth pursuit, distinct jerkiness at maximum deviation, and an onset of nystagmus prior to reaching 45 degrees in both eyes.

The Walk and Turn test was demonstrated and administered on the sidewalk behind the Jeep. Ms. Webster was asked to walk in a straight line parallel to the curb. On the first nine steps she stepped out of the straight line walk on the 3rd step, raised her arms for balance on the 3rd and 5th step, missed heel to toe by 4" on the 7th and 9th steps, and took 10 steps before turning. She also turned by swivelling in one motion rather than as directed. On the 2nd nine steps, she stepped off the straight line, raised her arms for balance, and stopped to look behind her on the 2nd step. She missed heel to toe by approximately 3" on the 7th step.

Sgt. Tower then demonstrated and administered the One Leg Stand test. Ms. Webster elected to stand on her right leg. On the count from 1014-1015, she jumbled the count. On 1017, she swayed noticeably, raised both arms for balance and hopped briefly. On 1025, she swayed noticeably again.

Based on observations of the driving, physical appearance and performance of the field sobriety tests, Sgt. Tower placed Ms. Webster under arrest for DWI.

Disposition of Vehicle/Passengers:

The vehicle was towed to Ron's Shell, 1022 Western Avenue, Rockville at Ms. Webster's request.

The passengers, Sam Johnson, Mary Jones and Mark Anderson were transported to the Rockville Barrack by Trooper Smith and were subsequently picked up at 5:00 pm by John Johnson, Sam's father.

Transport:

Ms. Webster was transported to the Rockville Barrack by Sgt. Tower and Trooper Pang. She made no statements during the trip. Sgt. Tower departed the scene at 4:20 pm and arrived at the Rockville Barrack at 4:25 pm.

Admonishments:

Sgt. Tower administered the implied consent warning at 4:30 pm and the Miranda warning at 4:35 pm. Both admonishments were noted and witnessed on the appropriate forms.

Evidential Chemical Tests:

Trooper Jim Williams administered an Intoxilizer test at 5:00 pm. The test result was 0.13% BAC.

Notifications:

Ms. Webster called her mother, Joan Webster, at 5:15 pm and asked her to come to the Barrack to pick her up. She stated she would arrive at approximately 6:30 pm.

Incarceration/Release

Ms. Webster was held in the Barrack detention cell until her mother arrived. She was released to her mother's custody at 6:40 pm.

SESSION XIII
REPORT WRITING EXERCISE
AND MOOT COURT

SESSION XIII

REPORT WRITING EXERCISE AND MOOT COURT

Upon successfully completing this session, the participant will be able to:

- o Discuss the required information on a narrative arrest report.
- o Successfully complete a narrative arrest report.
- o Discuss the need for competent courtroom testimony.
- o Demonstrate the proper techniques of courtroom testimony.

CONTENT SEGMENTS

- A. Procedures and Assignments
- B. Report Writing Exercise
- C. Courtroom Testimony Exercise

LEARNING ACTIVITIES

- o Instructor-Led Presentation
- o Video Presentation
- o Participant's Writing Skills Exercise
- o Participant's Courtroom Testimony Exercise
- o Instructor-Led Discussion

SECTION 1000 - THE FEDERAL BUREAU OF INVESTIGATION

1. The following information was obtained from the files of the Federal Bureau of Investigation, Department of Justice, Washington, D. C., on the subject named above:

2. On or about the date mentioned above, the subject was employed by the Federal Bureau of Investigation, Department of Justice, Washington, D. C., as a Special Agent in Charge.

3. The subject was assigned to the New York Office of the Federal Bureau of Investigation, Department of Justice, Washington, D. C., on or about the date mentioned above.

4. The subject was assigned to the New York Office of the Federal Bureau of Investigation, Department of Justice, Washington, D. C., on or about the date mentioned above.

Very truly yours,

Special Agent in Charge

John Edgar Hoover

Director, Federal Bureau of Investigation

cc - New York

cc - New York

Very truly yours,

Special Agent in Charge

John Edgar Hoover

Director, Federal Bureau of Investigation

Very truly yours,

REPORT WRITING EXERCISE AND MOOT COURT

In this session, you will view a video tape of a simulated DWI arrest, after which you will write a narrative arrest report based on your observations. Some students subsequently will be selected to "testify" about the incident in a moot court.

TABLE 1. THE CHINESE ECONOMY IN THE 1980S.

The table shows the structure of the economy in the 1980s. It is divided into three main sectors: agriculture, industry, and services. The agricultural sector is the largest, followed by industry, and then services. The table also shows the growth rate of each sector and the total growth rate of the economy. The growth rate of the economy is shown to be high, indicating a period of rapid economic growth.

DWI INVESTIGATION FIELD NOTES

NAME _____ SEX _____ RACE _____
 ADDRESS _____ CITY/STATE _____ OP. LIC. NO. _____
 D.O.B. ____/____/____ SOC. SEC. # _____
 VEHICLE MAKE _____ YEAR _____ LIC. _____ STATE _____
 DISPOSITION _____ NO. PASSENGERS _____

INCIDENT LOCATION _____
 DATE ____/____/____ TIME _____ ACCIDENT YES NO

II VEHICLE IN MOTION

INITIAL OBSERVATIONS _____

OBSERVATION OF STOP _____

III PERSONAL CONTACT

OBSERVATION OF DRIVER _____

STATEMENTS _____

PRE-EXIT SOBRIETY TESTS _____

OBSERVATION OF THE EXIT _____

ODORS _____

IV PRE - ARREST SCREENING

HORIZONTAL GAZE NYSTAGMUS

NOTE: SUSPECT WEARING CONTACTS? NO YES HARD SOFT

	LEFT	RIGHT
★ EYE DOES NOT PURSUE SMOOTHLY		
★ DISTINCT NYSTAGMUS AT MAXIMUM DEVIATION		
★ NYSTAGMUS ONSET BEFORE 45 DEGREES		

OTHER: _____

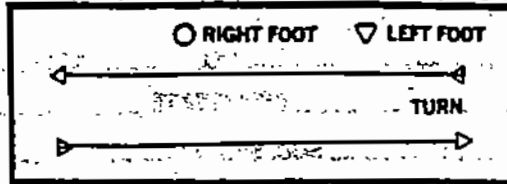
IV PRE-ARREST SCREENING (CONTINUED)

WALK AND TURN

INSTRUCTIONS STAGE

CANNOT KEEP BALANCE

STARTS TOO SOON



WALKING STAGE

STOPS WALKING
MISSES HEEL - TOE
STEPS OFF LINE
RAISES ARMS
ACTUAL STEPS TAKEN

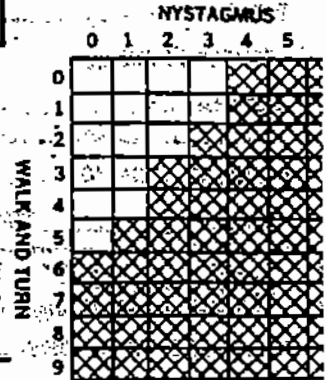
FIRST NINE STEPS

SECOND NINE STEPS

THE TURN (DESCRIBE) _____

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____



INTERSECTION: SHADED UNSHADED

ONE LEG STAND

SWAYS
RAISES ARMS
HOPS
FOOT DOWN

	0 TO 10 SEC'S	11 to 20 SEC'S	21 to 30 SEC'S
SWAYS			
RAISES ARMS			
HOPS			
FOOT DOWN			

CANNOT DO TEST (EXPLAIN) _____

OTHER: _____

PBT

OTHER FIELD SOBRIETY TESTS

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

NAME OF TEST _____

DESCRIBE PERFORMANCE _____

V GENERAL OBSERVATIONS

SPEECH _____

ATTITUDE _____

CLOTHING _____

OTHER _____

PHYSICAL EVIDENCE _____

SESSION XIV

"DRINKING SUBJECTS" PRACTICE: SECOND SESSION

1957

1957

SESSION XIV

"DRINKING SUBJECTS" PRACTICE: SECOND SESSION

Upon successfully completing this session, the participant will be able to:

- o Demonstrate proficiency in administering the SFST battery and interpreting the results.

CONTENT SEGMENTS

- A. Procedures
- B. Hands On Practice
- C. Session Wrap Up

LEARNING ACTIVITIES

- o Instructor-Led Demonstrations/
Practice Exercise

STATE OF TEXAS

County of _____

Know all men by these presents that _____

of the County of _____

State of Texas

do hereby certify that _____

is the true and correct copy of _____

as the same appears from the _____

records of this office.

"DRINKING SUBJECTS" PRACTICE: SECOND SESSION

During this session, you will work with several other students to administer standardized field sobriety tests to volunteers who have consumed alcoholic beverages. Some of these volunteers will have blood alcohol concentrations above 0.10%. Others will have BACs below that level. You will carefully note and record the volunteers' performance, and attempt to distinguish the "0.10% and above" volunteers from the "below 0.10%" volunteers.

**STUDENT PERFORMANCE CHECKLIST
IMPROVED SOBRIETY TESTS BATTERY**

Student Name: _____ Date: _____

I. HORIZONTAL GAZE NYSTAGMUS

- _____ 1. Asks if subject is wearing contact lenses.
- _____ 2. Object held in proper position (15" from nose, just above eye level).
- _____ 3. Check equal tracking.
- _____ 4. Check pupil size.
- _____ 5. Smooth movement from center of nose to maximum deviation in 2 seconds and then back to center. (Repeat at least 2 times). Check left eye, then right eye.
- _____ 6. Eye held at maximum deviation for four seconds (no white showing). Check left eye, then right eye.
- _____ 7. Eye moved slowly (4 sec.) from center to 45 angle. Check left eye, then right eye.
- _____ 8. Check for vertical nystagmus.

II. WALK AND TURN

- _____ 1. Instructions given from a safe position.
- _____ 2. Tells subject to place feet on line in heel-to-toe manner (left foot behind right foot) with arms at sides and gives demonstration.
- _____ 3. Tells subject not to begin test until instructed to do so and asks if he/she understands.
- _____ 4. Tells subject to take nine heel-to-toe steps and demonstrates.
- _____ 5. Explains and demonstrates turning procedure.
- _____ 6. Tells subject to return with nine heel-to-toe steps.
- _____ 7. Tells subject to count steps out loud.
- _____ 8. Tells subject to look at feet while counting.
- _____ 9. Tells subject not to raise arms from sides.
- _____ 10. Tells subject not to stop once he/she begins.
- _____ 11. Asks subject if all instructions are understood.

III. ONE LEG STAND :

- _____ 1. Instructions given from a safe position.
- _____ 2. Tells subject to stand straight, place feet together, and hold arms at sides.
- _____ 3. Tells subject not to begin test until instructed to do so and asked if he/she understands.
- _____ 4. Tells subject to raise either leg 6" from ground while holding other leg stiff and gives demonstration.
- _____ 5. Tells subject to keep toes pointed ahead and to keep eyes on elevated foot.
- _____ 6. Tells subject to count to 30 by thousands and gives demonstration.
- _____ 7. Checks actual time subject holds leg up.

Instructor: _____

1. The first part of the report...

1

2. The second part of the report...

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3. The third part of the report...

3

4. The fourth part of the report...

4

5. The fifth part of the report...

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6. The sixth part of the report...

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8. The eighth part of the report...

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10. The tenth part of the report...

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12. The twelfth part of the report...

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13. The thirteenth part of the report...

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14. The fourteenth part of the report...

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15. The fifteenth part of the report...

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16. The sixteenth part of the report...

16

17. The seventeenth part of the report...

17

18. The eighteenth part of the report...

18

19. The nineteenth part of the report...

19

20. The twentieth part of the report...

20

IV PRE-ARREST SCREENING (CONTINUED)

WALK AND TURN

INSTRUCTIONS STAGE

CANNOT KEEP BALANCE

STARTS TOO SOON



WALKING STAGE

FIRST NINE STEPS

SECOND NINE STEPS

STOPS WALKING
MISSES HEEL - TOE
STEPS OFF LINE
RAISES ARMS
ACTUAL STEPS TAKEN

THE TURN (DESCRIBE)

CANNOT DO TEST (EXPLAIN)

OTHER:

NYSTAGMUS

	0	1	2	3	4	5	6
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							

INTERSECTION: SHADED
 UNSHADED

ONE LEG STAND

	0 TO 10 SEC'S	11 TO 20 SEC'S	21 TO 30 SEC'S
SWAYS			
RAISES ARMS			
HOPS			
FOOT DOWN			

CANNOT DO TEST (EXPLAIN)

OTHER:

PBT

OTHER FIELD SOBRIETY TESTS

NAME OF TEST

DESCRIBE PERFORMANCE

NAME OF TEST

DESCRIBE PERFORMANCE

NAME OF TEST

DESCRIBE PERFORMANCE

V GENERAL OBSERVATIONS

SPEECH

ATTITUDE

CLOTHING

OTHER

PHYSICAL EVIDENCE

SESSION XV
REVIEW AND PROFICIENCY EXAMINATIONS

1961-1962

UNITED STATES OF AMERICA

SESSION XV

REVIEW AND PROFICIENCY EXAMINATIONS

Upon successfully completing this session, the participant will be able to:

- o Demonstrate knowledge and proficiency in administering the standardized field sobriety testing battery.

CONTENT SEGMENTS

- A. Review of Horizontal Gaze Nystagmus
- B. Review of Walk and Turn
- C. Review of One Leg Stand
- D. Video Tape Demonstration
- E. Proficiency Exam

LEARNING ACTIVITIES

- o Instructor-Led Presentation
- o Instructor-Led Demonstration
- o Student-Led Demonstration
- o Video Tape Demonstration
- o Participant Proficiency Examination

THE STATE OF TEXAS, COUNTY OF DALLAS

Know all men by these presents, that I, the undersigned, do hereby certify that the within and foregoing is a true and correct copy of the original as the same appears from the records of the County of Dallas, State of Texas.

Notary Public in and for the State of Texas

My Commission Expires

My Comm. Expires

My Comm. Expires

REVIEW AND PROFICIENCY EXAMINATIONS

During this session, you will review the administrative procedures for the three standardized field sobriety tests. You will participate in and observe demonstrations of those tests in the classroom. And, you will view video taped demonstrations.

Near the end of this session, you will be examined and determine your proficiency in administering the three tests. Study the Student's Performance Checklist. You must perform each administrative step flawlessly to pass the proficiency examination.

STUDENT PERFORMANCE CHECKLIST
IMPROVED SOBRIETY TESTS BATTERY

Student Name: _____ Date: _____

I. HORIZONTAL GAZE NYSTAGMUS

- _____ 1. Asks if subject is wearing contact lenses.
- * _____ 2. Object held in proper position (15" from nose, just above eye level).
- _____ 3. Check equal tracking.
- _____ 4. Check pupil size.
- * _____ 5. Smooth movement from center of nose to maximum deviation in 2 seconds and then back to center. (Repeat at least 2 times). Check left eye, then right eye.
- * _____ 6. Eye held at maximum deviation for a few seconds (no white showing). Check left eye, then right eye.
- * _____ 7. Eye moved slowly (4 sec.) from center to 45 angle. Check left eye, then right eye.
- _____ 8. Check for vertical nystagmus.

II. WALK AND TURN

- _____ 1. Instructions given from a safe position.
- * _____ 2. Subject told to place feet on line in heel-to-toe manner with arms at sides and gives demonstration.
- * _____ 3. Subject told not to begin test until instructed to do so and asked if he/she understands.
- * _____ 4. Tells subject to take nine heel-to-toe steps and demonstrates.
- * _____ 5. Explains and demonstrates turning procedure.
- * _____ 6. Tells subject to return with nine heel-to-toe steps.
- * _____ 7. Subject told to count steps out loud.
- * _____ 8. Tells subject to look at feet while counting.
- * _____ 9. Tells subject not to raise arms from sides.

- * _____ 10. Subject told not to stop once he/she begins.
- * _____ 11. Asks subject if all instructions are understood.
- _____ 12. Properly scores test.

III. ONE LEG STAND

- _____ 1. Instructions given from a safe position.
- _____ 2. Subject told to stand straight, place feet together, and hold arms at sides.
- _____ 3. Subject told not to begin test until instructed to do so and asked if he/she understands.
- * _____ 4. Tells subject to raise either leg 6" from ground while holding other leg stiff and gives demonstration.
- * _____ 5. Subject told to keep eyes on elevated leg.
- * _____ 6. Tells subject to count to 30 by thousands and gives demonstration.
- _____ 7. Checks actual time subject holds leg up.
- _____ 8. Properly scores test.

Instructor: _____

1. The first part of the document is a list of names.

2. The second part of the document is a list of names.

3. The third part of the document is a list of names.

4. The fourth part of the document is a list of names.

5. The fifth part of the document is a list of names.

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12. The twelfth part of the document is a list of names.

13. The thirteenth part of the document is a list of names.

14. The fourteenth part of the document is a list of names.

15. The fifteenth part of the document is a list of names.

SESSION XVI

WRITTEN EXAMINATION AND PROGRAM CONCLUSION

THE REPORT

REPORT OF THE COMMISSION ON THE ORGANIZATION OF THE FEDERAL GOVERNMENT

SESSION XVI

WRITTEN EXAMINATION AND PROGRAM CONCLUSION

Upon successfully completing this session, the participant will be able to:

- o Complete a written examination with a passing grade.
- o Provide comments and suggestions for improving the course.

CONTENT SEGMENTS

- A. Post Test
- B. Critique
- C. Review of Post Test
- D. Concluding Remarks
- E. Certificates and Dismissal

LEARNING ACTIVITIES

- o Written Student Examination
- o Written Student Critique
- o Instructor-Led Presentation

CONFIDENTIAL TO THE PRESIDENT AND VICE PRESIDENT
AND TO THE MEMBERS OF THE NATIONAL SECURITY AGENCY
AND THE NATIONAL SECURITY COUNCIL AND TO THE
MEMBERS OF THE JOINT CHIEFS OF STAFF AND TO THE
MEMBERS OF THE BOARD OF SUPERVISORS OF THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CONFIDENTIAL TO THE PRESIDENT AND VICE PRESIDENT
AND TO THE MEMBERS OF THE NATIONAL SECURITY AGENCY
AND THE NATIONAL SECURITY COUNCIL AND TO THE
MEMBERS OF THE JOINT CHIEFS OF STAFF AND TO THE
MEMBERS OF THE BOARD OF SUPERVISORS OF THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CONFIDENTIAL TO THE PRESIDENT AND VICE PRESIDENT
AND TO THE MEMBERS OF THE NATIONAL SECURITY AGENCY
AND THE NATIONAL SECURITY COUNCIL AND TO THE
MEMBERS OF THE JOINT CHIEFS OF STAFF AND TO THE
MEMBERS OF THE BOARD OF SUPERVISORS OF THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WRITTEN EXAMINATION AND PROGRAM CONCLUSION

During this session, you will take a written test to demonstrate your knowledge of the key topics covered in this course. This will be an open-book test. Study your manual prior to the test. Become familiar with its contents. Then, you'll have no problem with the test.

Suggested topics for review to prepare for the test.

1. Deterrence and DWI

What approximate percentage of fatal crashes involve drivers who have been drinking?

On any typical weekend night, approximately what percentage of cars are driven by persons who are DWI?

Approximately what percentage of adult Americans are estimated to commit DWI at least occasionally?

About how many times per year does the average DWI violator commit DWI?

An alcohol-related crash is more likely to result in death than is a non-alcohol-related crash. How many times more likely?

It is estimated that the current odds of being arrested for DWI on any one impaired driving event are about one-in-_____.

2. Detection Phases

What are the three phases of detection?

What is the definition of "detection"?

What is the police officer's principal decision during Detection Phase One? During Phase Two? During Phase Three?

Suppose you are on nighttime patrol and you see a vehicle following another too closely. What are the odds that the driver of the following vehicle is DWI?

3. Laws

What does "Per Se" mean?

The "Illegal Per Se" law makes it an offense to operate a motor vehicle while _____.

True or False: The Implied Consent Law grants the suspect the option of refusing the chemical test.

True or False: A person cannot be convicted of DWI if his or her BAC was below 0.05%.

4. Alcohol Physiology and Technology

True or False: Vision will be impaired for virtually all people by the time BAC reaches 0.08%.

Name at least three factors that may affect the accuracy of a preliminary breath test.

5. Field Sobriety Testing

What does "nystagmus" mean?

Walk-and-Turn is an example of a _____ attention test.

Name the eight distinct clues of Walk-and-Turn.

Name the four distinct clues of One-Leg-Stand.

Name the three distinct clues of Horizontal Gaze Nystagmus.

What is the critical angle for determining whether the third clue of HGN is present?

How many steps in each direction must the suspect take in the Walk-and-Turn test?

How long must the suspect stand on one foot in the One Leg Stand test?

Suppose a suspect produces three clues on the HGN test and one clue on the Walk-and-Turn test. Should you classify the suspect's BAC as above or below 0.10%?

How reliable is each test?

During this session, you will also be asked to complete — anonymously — a critique form. The instructors need your comments and suggestions to help them improve the course.

Course Location

Date

**DWI DETECTION AND STANDARDIZED FIELD SOBRIETY
TESTING TRAINING PROGRAM**

STUDENT'S CRITIQUE

A. Workshop Objectives:

Please indicate whether you feel that you personally achieved the following course objectives:

	<u>YES</u>	<u>NO</u>	<u>NOT SURE</u>
1. Enable you to understand enforcement's role in general DWI deterrence.	_____	_____	_____
2. Enable you to understand the detection phases.	_____	_____	_____
3. Enable you to understand requirements for organizing and presenting testimonial and documentary evidence in DWI cases.	_____	_____	_____
4. Improve your ability to recognize and interpret evidence of DWI violations.	_____	_____	_____
5. Enable you to administer and interpret validated psychophysical tests to DWI suspects.	_____	_____	_____
6. Improve your ability to describe DWI evidence clearly and convincingly in written reports and verbal testimony.	_____	_____	_____

B. Workshop Sessions and Quality of Instruction:

Please rate how helpful each workshop session was for you personally and the quality of instruction (instructor's knowledge, instructional techniques and learning activities) on a scale from 1 to 5 where: 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Fair, 1 = Poor.

	<u>Session</u>	<u>Quality</u>
o Detection and General Deterrence	_____	_____
o The Legal Environment	_____	_____
o Overview of Detection, Note-Taking and Testimony	_____	_____
o Phase One: Vehicle in Motion	_____	_____
o Phase Two: Personal Contact	_____	_____

MINUTES OF THE BOARD OF DIRECTORS
OF THE UNIVERSITY OF CALIFORNIA

MEETING OF THE BOARD OF DIRECTORS

HELD AT THE UNIVERSITY OF CALIFORNIA

ON WEDNESDAY, OCTOBER 10, 1967, AT 10:00 A.M.

10

The Board of Directors met in regular session on Wednesday, October 10, 1967, at 10:00 a.m. in the Board Room, University of California Administration Building, Los Angeles, California.

Present: [Names of Board Members]

Absent: [Names of Absent Board Members]

The minutes of the meeting of the Board of Directors held on September 13, 1967, were read and approved.

The minutes of the meeting of the Board of Directors held on September 27, 1967, were read and approved.

The minutes of the meeting of the Board of Directors held on October 4, 1967, were read and approved.

The minutes of the meeting of the Board of Directors held on October 10, 1967, were read and approved.

There being no further business, the meeting adjourned at 11:30 a.m.

Respectfully submitted,
[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

	Session	Quality
o Phase Three: Pre-Arrest Screening	_____	_____
o Concepts and Principles of Standardized Field Sobriety Tests	_____	_____
o Test Battery Demonstrations	_____	_____
o "Dry Run" Practice	_____	_____
o "Drinking Subjects" Practice	_____	_____
o Processing the Arrested Suspect and Preparation for Trial	_____	_____
o Report Writing Exercise and Moot Court	_____	_____
C. <u>Course Design</u>		

Please circle the appropriate word to indicate your agreement or disagreement with each of the following statements.

1. The program contains some information that is not needed and that should be deleted.
Agree Disagree Not Sure
2. There are some important topics missing from the program that should be added.
Agree Disagree Not Sure
3. The program is too short.
Agree Disagree Not Sure
4. I feel this program has improved my own ability to enforce DWI laws.
Agree Disagree Not Sure
5. The instructors did a good job.
Agree Disagree Not Sure
6. I am very glad I attended the program.
Agree Disagree Not Sure
7. The program is too long.
Agree Disagree Not Sure
8. The instructors should have been better prepared.
Agree Disagree Not Sure

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DRUGS THAT IMPAIR DRIVING

ADMINISTRATOR'S GUIDE

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

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 - 4. What Subject Matter Does The Module Cover?
 - 5. What Activities Take Place During The Training?
 - 6. How Long Does The Module Take?
- C. OVERVIEW OF THE CURRICULUM PACKAGE
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 - 2. Visual Aids
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- D. GENERAL ADMINISTRATIVE REQUIREMENTS
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 - 2. Facility Requirements
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 - 4. Class Size Considerations
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A. Purpose Of This Document

This Administrator's Guide provides an introduction to and an overview of the half-day instructional module entitled "Drugs That Impair Driving". The module is designed to be delivered with the curriculum entitled "DWI Detection and Standardized Field Sobriety Testing", a program of instruction intended for delivery to as many as possible of the nation's traffic law enforcement officers. That curriculum is designed to help those officers become more proficient at detecting, apprehending, testing and convicting alcohol-impaired drivers.

The module's subject matter relates to a second curriculum, "Drug Evaluation and Classification", which provides a seven-day classroom training program as the first step in qualifying an officer to serve as a drug recognition technician (DRT). This training is intended to be delivered on a much more selective basis, e.g., perhaps to only a few percent of traffic law enforcement officers. A qualified DRT is a specially-skilled individual who can examine a person suspected of drug impairment and determine, with a high degree of accuracy, the broad category (or combination of categories) of drugs causing the impairment. A DRT does his or her specialized work only after a suspect has been apprehended (for DWI or some other offense), and only when there is reason to believe that alcohol alone is not responsible for the impairment.

A mounting body of data suggests that an appreciable percentage of DWI violators may be under the influence of drugs other than alcohol, either alone or in combination with alcohol. Estimates of this "appreciable percentage" vary, but all estimators agree that the average DWI enforcement officer almost inevitably will encounter drug-impaired drivers from time to time. Therefore, it is important that the officer be able to recognize when he or she has encountered a drug-impaired suspect, and to call this to the attention of a qualified DRT. The half-day module is designed to address that need.

This Administrator's Guide is intended for law enforcement agencies that have already trained their personnel in standardized field sobriety testing. The Guide supports delivery of the module "Drugs That Impair Driving" as a stand-alone program of instruction, e.g., for in-service training.

This Administrator's Guide facilitates planning and implementation of the module. The Guide overviews the half-day course of instruction and the documents and other materials that make up the module's curriculum package. It describes the module's curriculum package. It describes the module's administrative requirements and offers guidelines for discharging those requirements satisfactorily. It outlines the preparatory work that must be accomplished by a law enforcement agency before the module can be offered to that agency's personnel. And, it describes the follow-up work that should be undertaken to ensure the continuing delivery of the highest possible quality of instruction.

Before addressing the details of this introductory module, it is appropriate to emphasize one thing that the module will not do:

**THIS TRAINING WILL NOT QUALIFY
AN OFFICER TO SERVE AS A DRUG
RECOGNITION TECHNICIAN.**

True, the subject matter covered touches upon some (but not all) of the factors a DRT considers in examining a drug-impaired suspect. But no one should attempt to identify drug categories based only on the knowledge acquired through this module. Any such attempt will cheapen, and perhaps diminish the court's willingness to accept the highly specialized knowledge and skills that a DRT must work long and hard to develop.

B. Overview Of The Module

1. For Whom Is The Training Intended?

This module is designed primarily for police officers who are able to administer and interpret the horizontal gaze nystagmus test for alcohol-impaired suspects. The student should be fully conversant with the procedural "mechanics" of HGN, with the three clues of HGN, and with the interpretation of those clues for assessing alcohol impairment. A major focus of this module is on the examination of a drug-impaired suspect's eyes, and the procedures for those eye examinations derive largely from HGN procedures.

2. What Are The Purposes Of The Module?

The purpose of the module is to improve students' ability to recognize suspect who may be under the influence of drugs other than alcohol, and to take appropriate action when they encounter such suspects. The "appropriate action" usually will be to request a medical examination of the suspect. The hope and expectation is that, due to this training, fewer drug- or medically-impaired suspects will avoid detection or be treated simply as alcohol-impaired. In those agencies that have a drug evaluation and classification program, the "appropriate action" would be to summon a DRT. Note that the purpose of this module does not require that the student develop the ability to distinguish what type of drug is responsible for the observed impairment. Indeed, we assert that this module, by itself, cannot develop that ability. But the student should become more adept to recognizing the possible presence of some drug other than alcohol, or a medical condition, and at conveying a credible basis for that suspicion.

3. What Will The Students Get Out Of The Module?

The student who successfully completes the module will be able to:

- o define the term "drug" in the context of this course;
- o describe in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and DWI enforcement;
- o name the major categories of drugs;
- o describe the observable signs of impairment generally associated with the major drug categories;
- o describe medical conditions and other situations that can produce similar signs of impairment; and,

- o describe appropriate procedures for dealing with drug-impaired or medically-impaired suspects.

It should be noted that material to support training in the appropriate procedures for dealing with drug- or medically-impaired suspects must be developed by each department participating in this training. NHTSA has not attempted to prepare generic lesson plans to cover these procedures, since it is not possible to anticipate the logistic and other considerations that will face every department.

4. **What Subject Matter Does The Module Cover?**

The principal content topics include:

- (1) The concept of "drugs" in the context of DWI enforcement. Basically, as far as the traffic law enforcement officer is concerned, a "drug" is a chemical that impairs driving ability.
- (2) The magnitude and scope of drug use and abuse in America, and the involvement of drugs in impaired driving incidents.
- (3) The role of eye examinations in disclosing the possibility of drug impairment, and in suggesting the possible category or categories of drugs, or medical conditions causing a particular suspect's impairment.
- (4) The observable effects of each of seven major categories of drugs.
- (5) The effects likely to result from various combinations of drugs.
- (6) The department's prescribed procedures for dealing with cases involving suspected drug influence or medical conditions.

5. **What Activities Take Place During The Training?**

The module relies primarily on instructor-led presentations. This is in keeping with its focus on information development, rather than skill development.

6. **How Long Does The Module Take?**

The total instructional time (excluding breaks) is three hours and thirty minutes.

C. Overview Of The Curriculum Package

In addition to this Administrator's Guide, the curriculum package for this module includes the following materials:

- o Instructor's Lesson Plans Manual
- o Visual Aids
- o Student's Manual

1. Instructor's Lesson Plans Manual

The Instructor's Lesson Plans Manual is a complete and detailed blueprint of what the module covers and how it is to be taught. The lesson plans are arranged in a standard, side-by-side format. The left side page outlines the subject-matter content, i.e., what is to be taught. The "content" page presents:

- o facts;
- o concepts;
- o procedural steps;
- o rules and regulations;
- o etc.

The right side page presents "instructional notes" associated with the content. The notes outline how the content is to be taught. Typical entries under the instructional notes column include:

- o the approximate amount of time to be devoted to each major content segment;
- o indications of what visual aids are to be used and when they are to be used;
- o questions that can be posed to the students to involve them more actively in the presentation;
- o indications of points requiring special emphasis;
- o examples and other techniques for clarifying the concepts being presented.

The Instructor's Lesson Plans Manual serves, first, as a means of preparing the instructor to teach the module. He or she should review the entire set of lesson plans, and become familiar with their contents and learning activities, to develop a clear understanding of how the various segments of the module "fit" together. The instructor is expected to become thoroughly familiar with each segment that he or she is assigned to teach, to prepare the relevant visual aids, and to assemble all "props" and other instructional equipment referenced in the lesson plans. The instructor should also modify or augment the instructional notes as necessary to ensure that his or her own teaching style is applied to the content.

Subsequently, the Instructor's Lesson Plans Manual serves as an in-class reference document for the instructor, to help him or her maintain the sequence and pace of presentations and other learning activities.

It is worth emphasizing that the Instructor's Lesson Plans Manual does not contain the texts of speeches. Although its outlines of content information are fairly well detailed, those outlines are not to be read verbatim to the participants.

2. Visual Aids

Three types of visual aids are used in this module:

- o chalkboard/flip-chart presentations (which are indicated in the "instructional notes" of the lesson plans, and are self-explanatory);
- o overhead transparencies;
- o video tape.

The overhead transparencies, or "visuals", are simple displays of graphic and/or narrative material that emphasize key points and support the instructor's presentation.

Each visual is numbered, and is referenced by number in the lesson plans to indicate when and how the visual is to be used.

Paper copies of all visuals are included in the Instructor's Lesson Plans Manual. Those copies can be photocopied onto acetate to produce overhead transparencies, or they can be photographed to produce 35mm slides.

The video tape is an excerpt from the videos developed for NHTSA's Drug Evaluation and Classification Training Program. The tape depicts portions of examinations of persons suspected of drug impairment.

3. Student's Manual

The Student's Manual is the principal reference source for this module. It contains summaries of the main points of the module's content, and guidance for further study and review by the student.

D. General Administrative Requirements

1. Delivery Contexts

This module is compatible with a wide variety of delivery contexts. NHTSA designed the module as an integral part of the "DWI Detection and Standardized Field Sobriety Testing" curriculum. But the module can also be delivered as a stand-alone training program, e.g., as a portion of the department's annual in-service training schedule. With some minor modifications, it should also be possible to sub-divide the module into 20-30 minute segments suitable for delivery as roll call training. The module is also suited to serve as briefing material for judges, prosecutors and other traffic safety personnel.

2. Facility Requirements

The module requires no special instructional facilities. A standard classroom, equipped with a screen, chalkboard, appropriate projector, video tape player and monitor and adequate seating/table space for all students will suffice.

3. Instructor Qualifications

Ideally, the principal instructor(s) for this module should at least have completed the classroom training phase of the Drug Evaluation and Classification Program. However, it is possible to teach this module adequately without having had that training, provided:

- (1) The instructor is thoroughly versed in standardized field sobriety testing; and,
- (2) has studied the student manual for the module in detail; and,
- (3) has participated in demonstrations of the eye examinations featured in the module.

4. Class Size Considerations

Because the module is concerned primarily with information delivery rather than skills development, reasonably large classes can be accommodated. A practical upper limit is approximately 35-40 students. Any larger class probably would not afford individual students sufficient opportunity to interact with instructors (e.g., through questions, comments, etc.) as much as would be desired.

E. Planning and Preparation Requirements

The planning and preparation requirements for this module are the standard requirements associated with any classroom training:

- o Select instructors and assign them to deliver specific segments of the module. Make sure that all instructors review all portions of the module so that they understand how their assignments "fit into" the total program.
- o Prepare acetates (or 35mm slides) for all visuals.
- o Obtain the necessary instructional equipment and make sure that all equipment is in proper working order.
- o Verify that all candidate students have previously completed (or will have completed, prior to delivery of the module) training in horizontal gaze nystagmus.
- o Arrange the classroom so that all students will have a clear view of the instructor, screen, chalkboard and video monitor.
- o Obtain (or reproduce) sufficient copies of the Student's Manual and any other handout materials.

F. Follow-Up Requirements

It is highly desirable that both the delivery and impact of this module be evaluated. Evaluation of "delivery" focuses on the general question "what did the students think of this training?" Evaluation of "impact" concerns itself with "how has the training affected students' on-the-job performance?"

Important data for evaluating training "delivery" can be obtained from the anonymous Student's Critique Form (included in the Instructor's Lesson Plans Manual). Each student should be requested to complete and submit the form immediately upon conclusion of the training. Guidelines for analyzing the student's Critique Form and preparing a post-course evaluation report are covered in Section G.

Assessment of training impact will require keeping records of each student's subsequent DWI arrests, and (most importantly) the number of times that the student requests assistance from medical personnel or a qualified DRT to evaluate a suspect for possible drug or medical impairment.

G. Guidelines For Preparing Post-Course Evaluation

A standard NHTSA/TSI participant's critique form is provided to document participant's initial ratings of course content and activities. The form is divided into eight parts:

- A. Workshop/Seminar Objectives
- B. Course Activities
- C. Course Design
- D. Topic Deletions
- E. Topic Additions
- F. Overall Quality of the Course
- G. Quality of Instruction
- H. Final Comments or Suggestions

The following instructions are provided to guide review, analysis and interpretation of participant's comments:

Section A - Workshop/Seminar Objectives

Determine raw tabulation and percentages for each objective:

- o If the "no"/"not sure" responses total 20% or more, some explanation should be provided. Assess the problem and explain or recommend changes as appropriate.

Section B - Course Activities

The rating choices are as follows:

- 1. Very Important
- 2. Somewhat Important
- 3. Un-Important
- 4. Not Sure

Analysis Procedures

Step 1: Tabulate total number of responses in each category for each category for each activity.

Step 2: The following values should be applied:

- o +2 for each "very important"
- o 0 for each "somewhat important"
- o -2 for each "un-important"
- o -1 for each "not sure"

Step 3: Determine total number of points for each activity.

Step 4: Divide the totals by twice the number of votes (N).

Step 5: The result is the final rating.

Any rating of +.5 or higher indicated the participant's consensus was that the activity (segment) was "very important".

If the rating is below +.2, some explanation should be provided...assess the reason(s) and explain or recommend changes as appropriate.

If the rating is below 0 there is a serious problem...assess the problem(s) and explain or recommend changes as appropriate.

Section C - Course Design

Determine raw tabulation and percentage for each statement.

Some comment or explanation should be provided if the inappropriate ("agree"/"disagree") or "not sure" responses exceed 20%.

Section D & E - Topic Deletion/Additions

Prepare a summary of responses for each section. Comment as appropriate.

Section F - Overall Quality of the Seminar

Total the numerical ratings, and divide by the number of responding participants. That gives the average rating for the seminar, on the scale from 1 ("very poor") to 5 ("excellent"). Comment as appropriate.

Section G - Quality of Instruction

For each instructor, tabulate his or her numerical ratings, and divide by the number of responding participants. Comment as appropriate.

Sections H - Final Comments

Prepare a summary of responses for each section. Comment as appropriate.

NOTE: A copy of the completed post course evaluation report should be forwarded to the appropriate State Highway Safety Office and/or NHTSA Field Region Office.

H. Requests For Information, Assistance or Materials

Requests for further assistance should be directed to the Transportation Safety Institute, via your State's Office of Highway Safety and your NHTSA Regional Office.

Three Hours and Thirty Minutes

DRUGS THAT IMPAIR DRIVING

Instructor's Lesson Plans

PURPOSE OF THIS TRAINING

TO IMPROVE YOUR ABILITY
TO RECOGNIZE SUSPECTS
WHO ARE UNDER THE
INFLUENCE OF DRUGS,
AND TO TAKE
APPROPRIATE ACTION
WITH THOSE SUSPECTS



OBJECTIVES

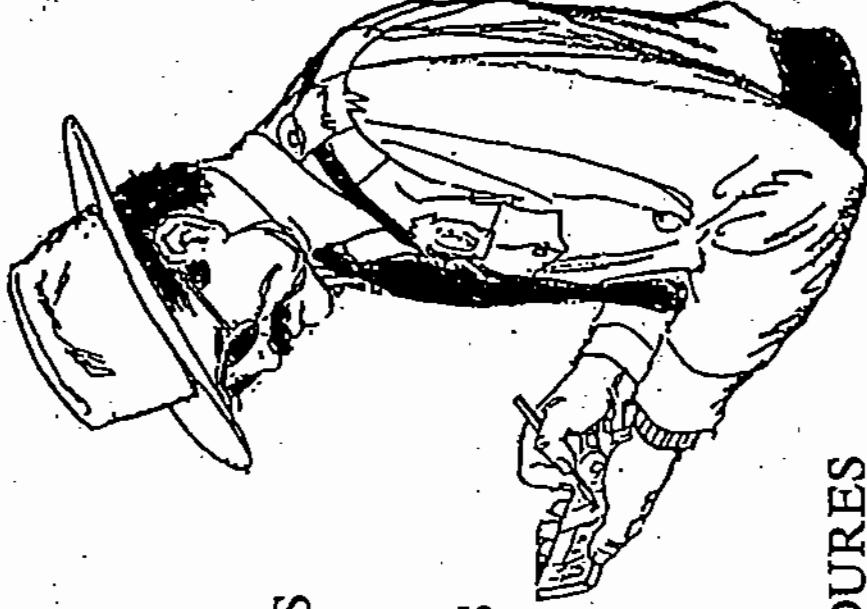
UPON COMPLETING THIS TRAINING,
YOU WILL BE BETTER ABLE TO:

- DEFINE THE TERM "DRUGS"
IN THE CONTEXT OF DWI
ENFORCEMENT
- DESCRIBE THE INCIDENCE OF
DRUG INVOLVEMENT IN MOTOR
VEHICLE CRASHES AND
DWI ENFORCEMENT
- NAME THE MAJOR CATEGORIES
OF DRUGS



OBJECTIVES (Continued)

- DESCRIBE THE OBSERVABLE SIGNS ASSOCIATED WITH THE MAJOR DRUG CATEGORIES
- DESCRIBE MEDICAL CONDITIONS AND OTHER SITUATIONS THAT CAN PRODUCE SIMILAR SIGNS
- DESCRIBE APPROPRIATE PROCEDURES FOR DEALING WITH DRUG - IMPAIRED OR MEDICALLY - IMPAIRED SUSPECTS

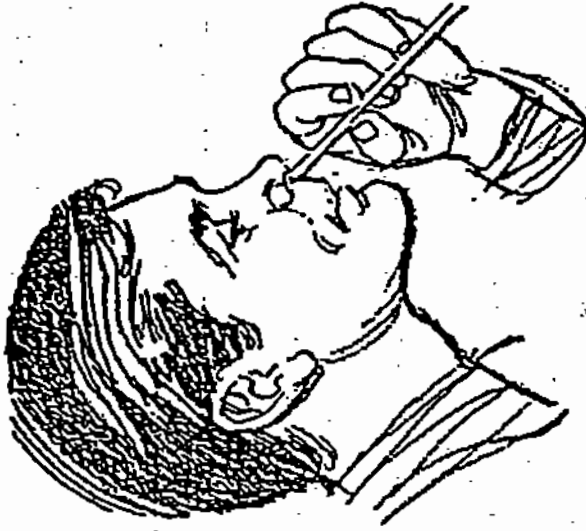
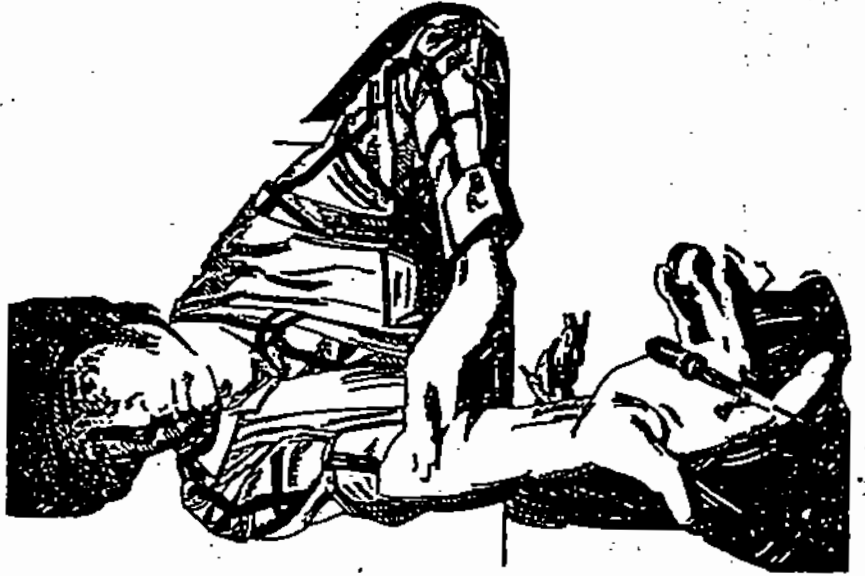
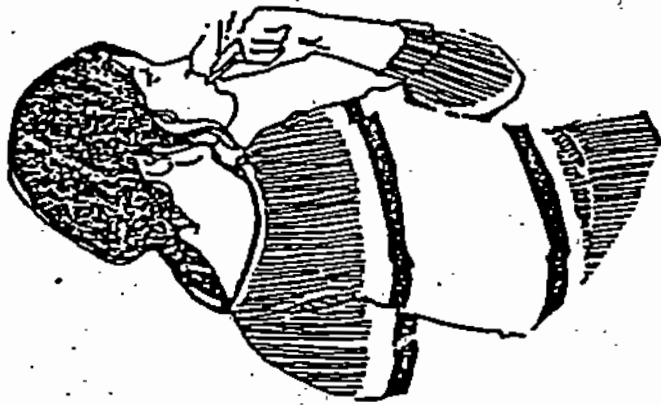


**ONE IMPORTANT THING THAT
THIS TRAINING WILL**

NOT ACCOMPLISH:

**IT WILL NOT QUALIFY
YOU TO BE A
DRUG RECOGNITION
TECHNICIAN**

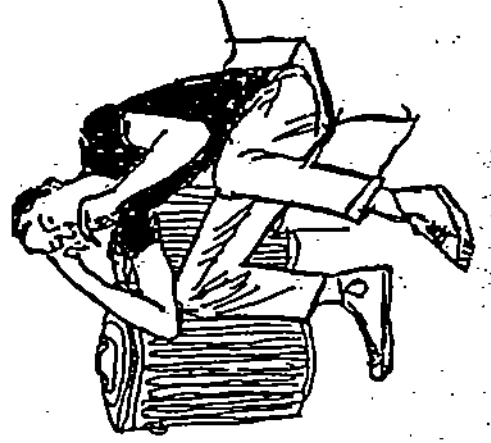
WHAT IS A DRUG ?





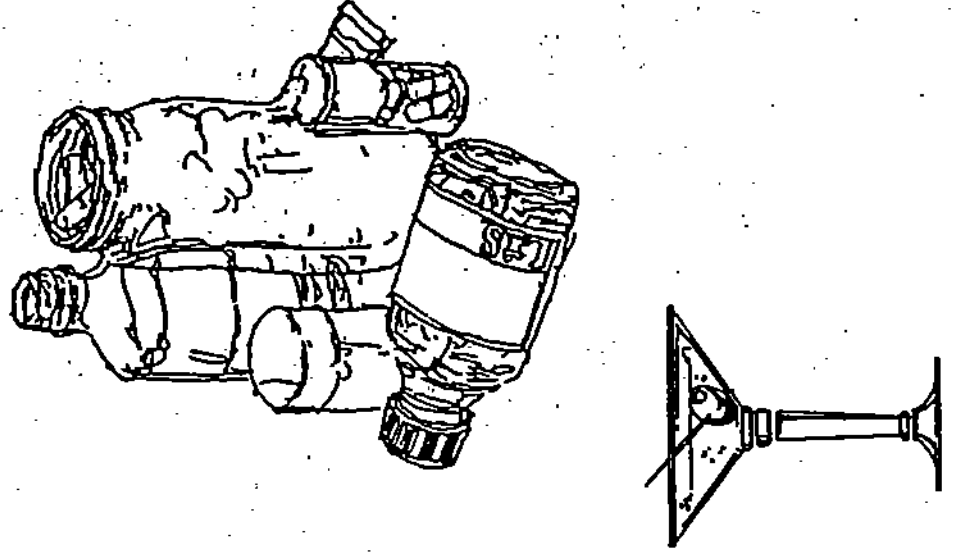
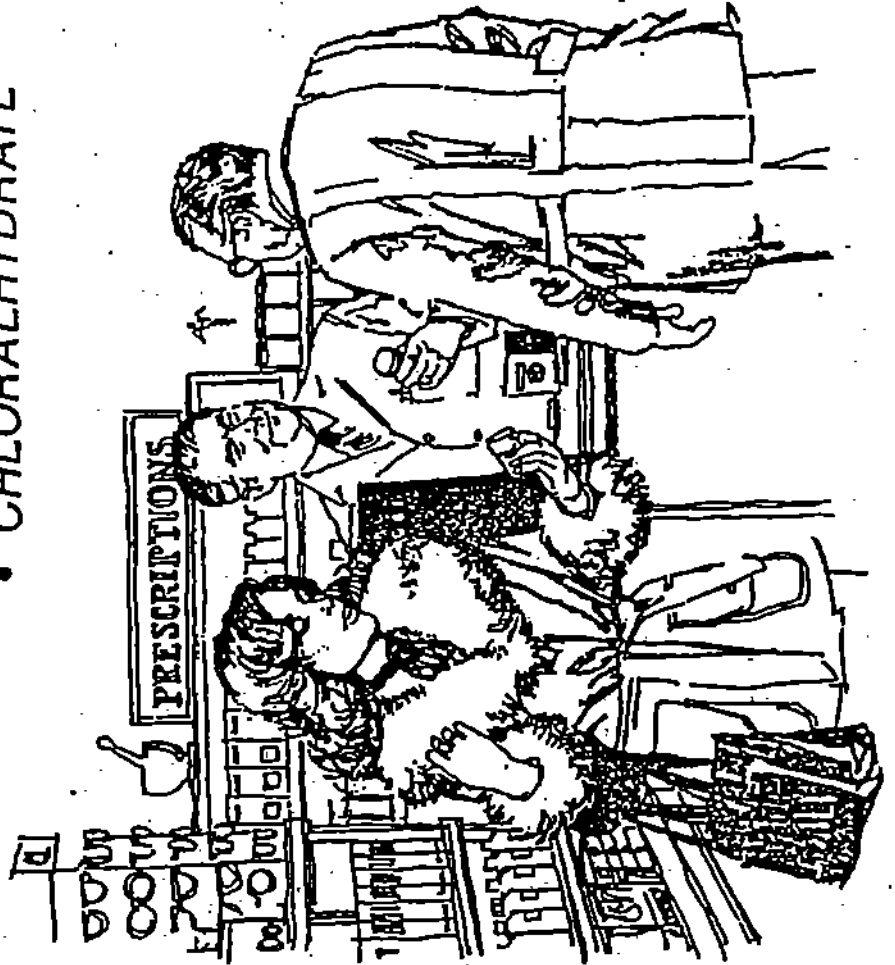
WORKING DEFINITION OF "DRUG"

Any chemical substance, natural or artificial, which when taken into the human body, can impair the ability of the person to operate a motor vehicle safely

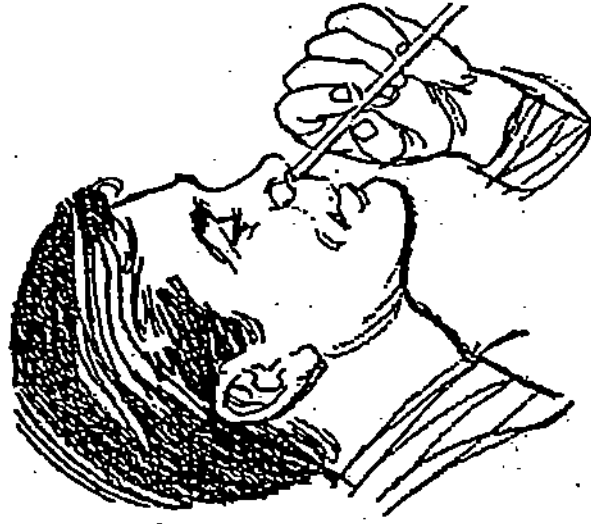


CENTRAL NERVOUS SYSTEM DEPRESSANTS

- ALCOHOL
- BARBITURATES
- VALIUM
- CHLORALHYDRATE



CENTRAL NERVOUS SYSTEM STIMULANTS



✓ COCAINE

✓ AMPHETAMINES

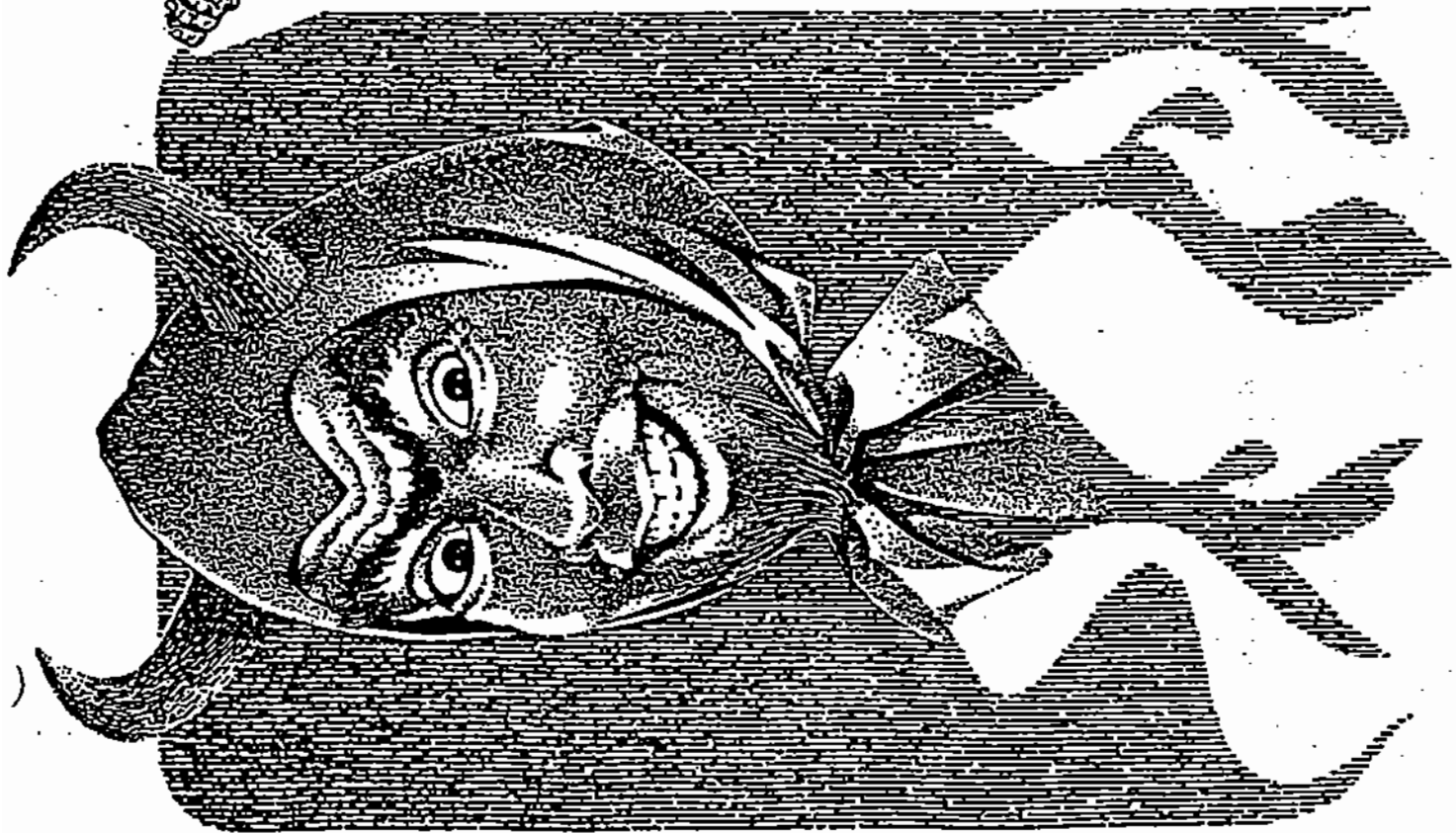
✓ METHAMPHETAMINES



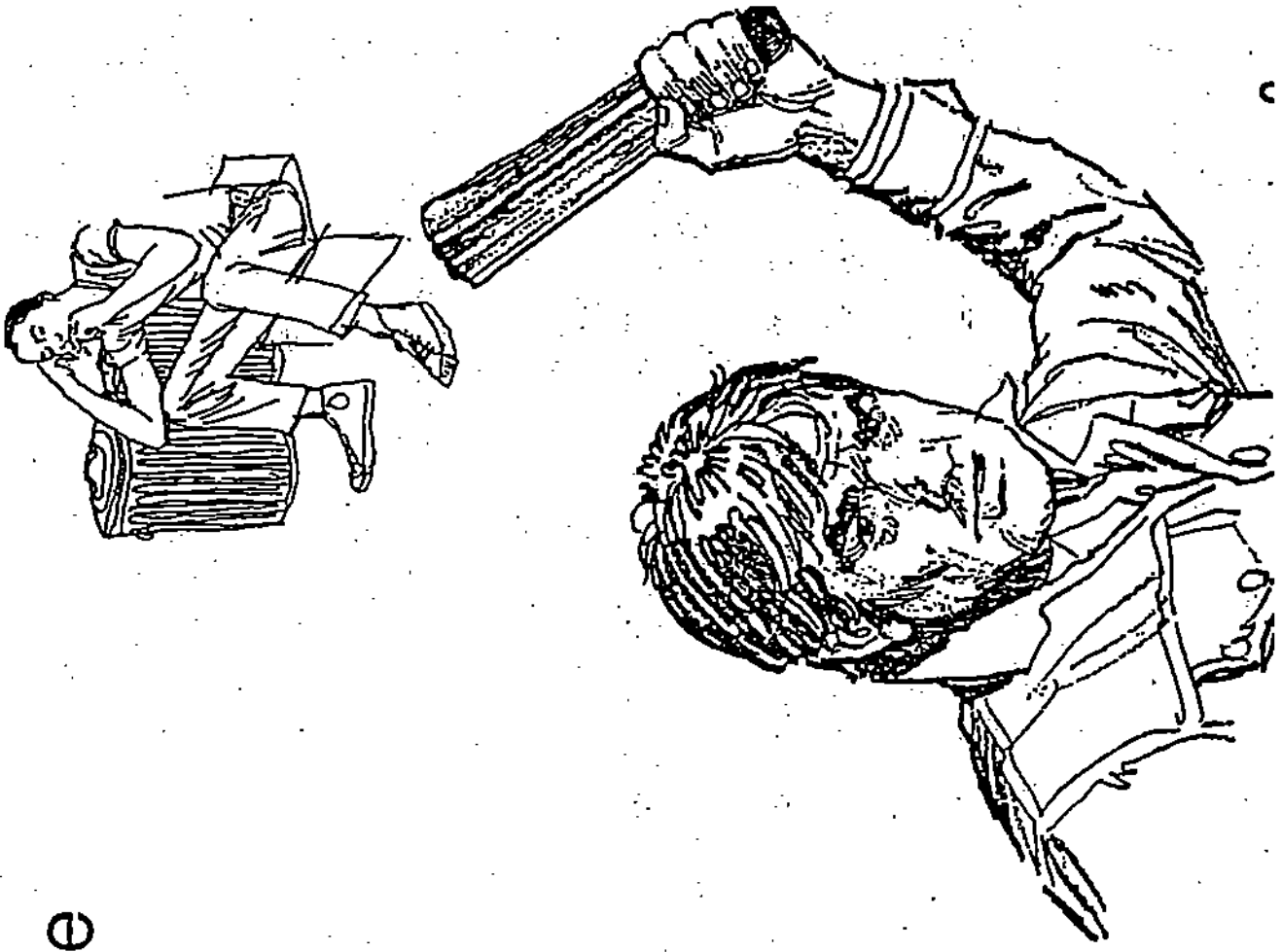
HALLUCINOGENS

✓ LSD

✓ PEYOTE

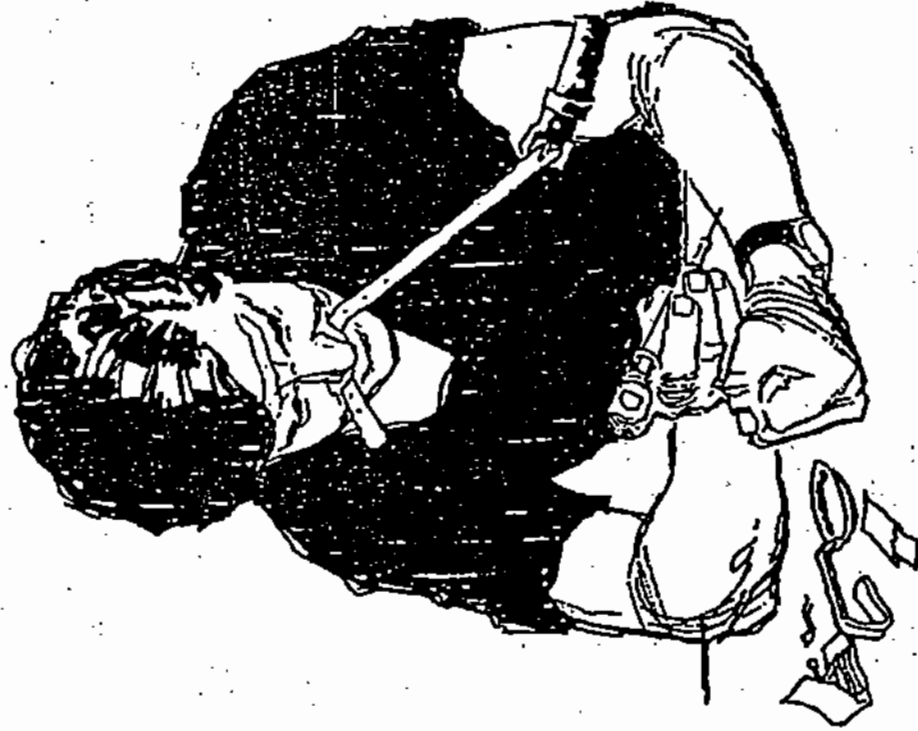


Phencyclidine (PCP)



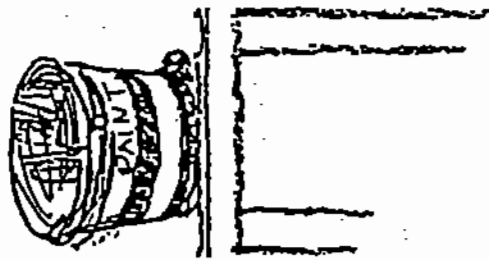
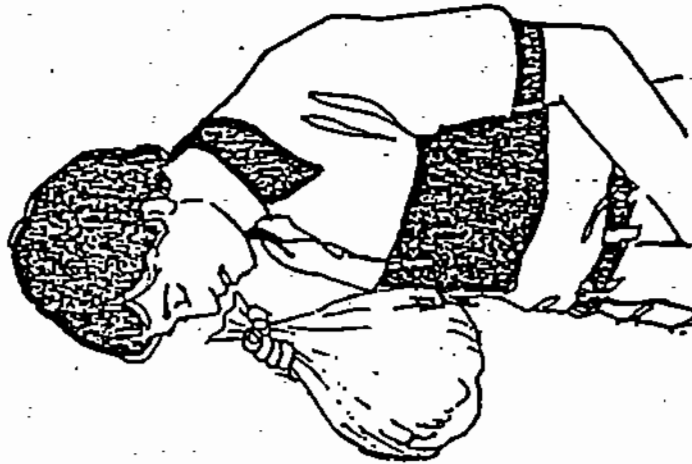
NARCOTIC ANALGESICS

- * HEROIN
- * MORPHINE
- * CODEINE
- * SYNTHETIC OPIATES
(e.g., demerol,
methadone)



INHALANTS

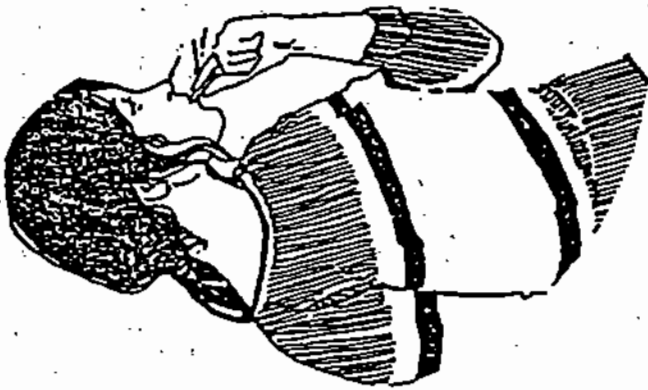
(e.g., TOLUENE)



CANNABIS

✓ MARIJUANA

✓ HASHISH



40 - 50 MILLION AMERICANS

REGULARLY USE DRUGS

OTHER THAN ALCOHOL

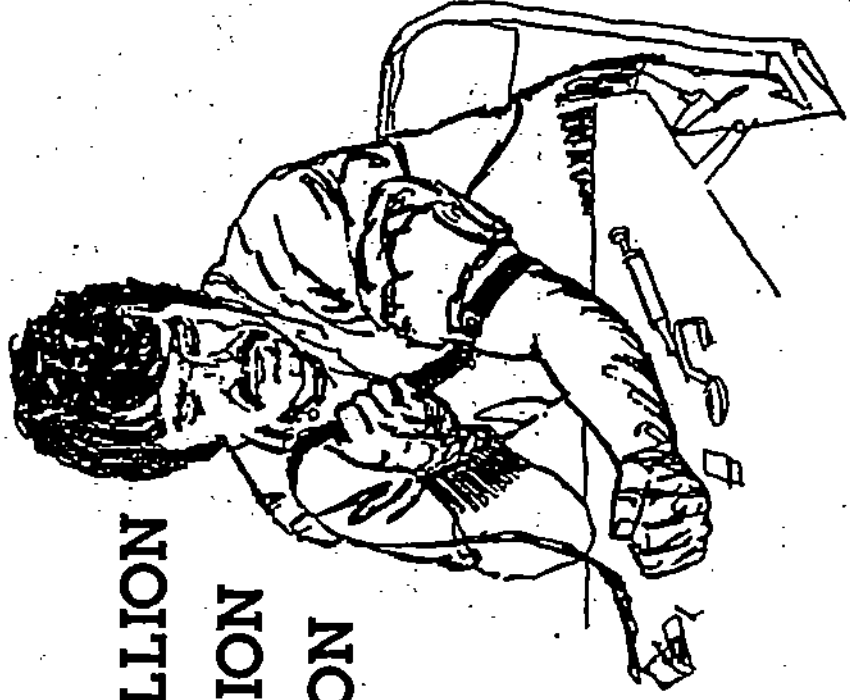
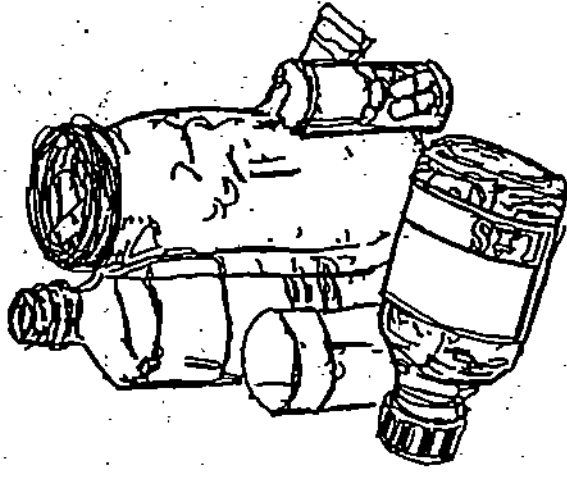
• MARIJUANA ... 20 MILLION

• COCAINE ... 8 - 20 MILLION

• PRESCRIPTION DRUGS ... 6 MILLION

• HALLUCINOGENS ... ONE MILLION

• HEROIN ... ONE - HALF MILLION





**DURING A TYPICAL YEAR,
MORE THAN 60 MILLION PRESCRIPTIONS
ARE WRITTEN IN AMERICA
FOR VALIUM AND SIMILAR TRANQUILIZERS**

HIGH SCHOOL SENIORS AND DRUGS



During the past 12 months

85% drank alcohol

40% smoked marijuana

25% used "stimulants"

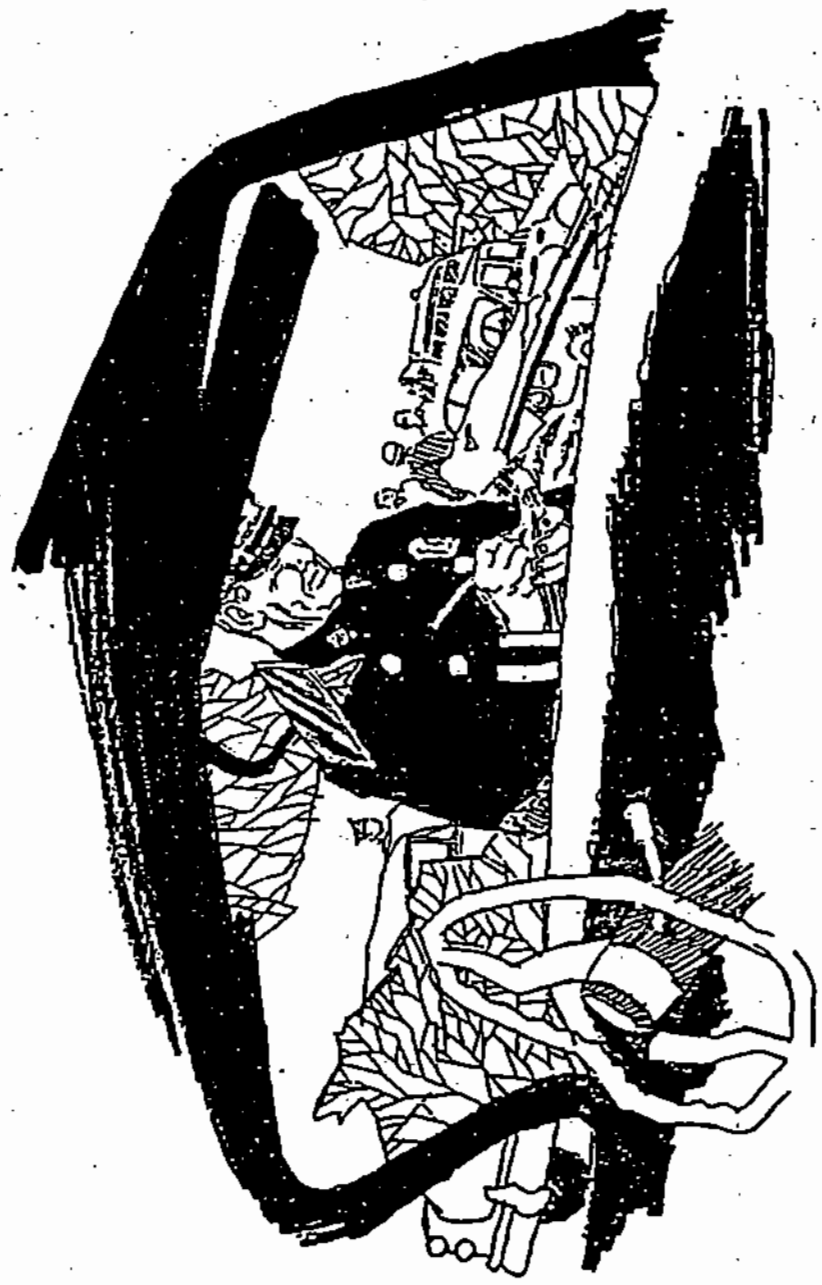
10% used cocaine

10% used hallucinogens or
tranquilizers, or both

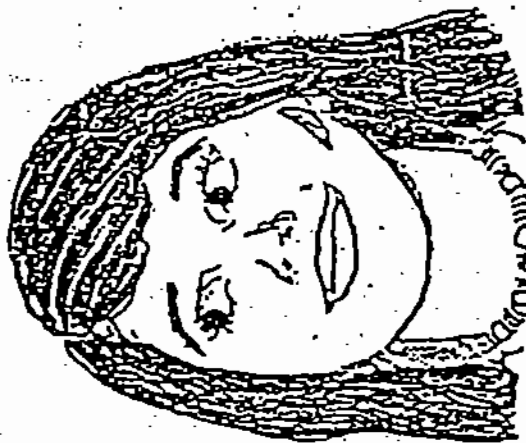
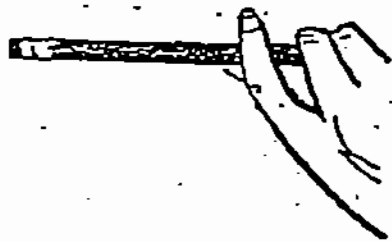
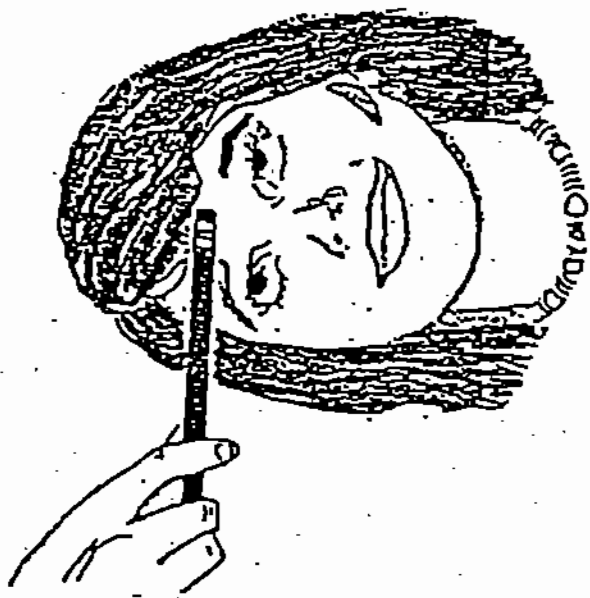
5% used barbiturates ...

...and only 5 - 10% didn't
use anything at all

STUDIES SHOW THAT MORE THAN
10 PERCENT OF FATALLY - INJURED
DRIVERS HAVE INGESTED DRUGS
OTHER THAN ALCOHOL



THE EYE EXAMINATIONS

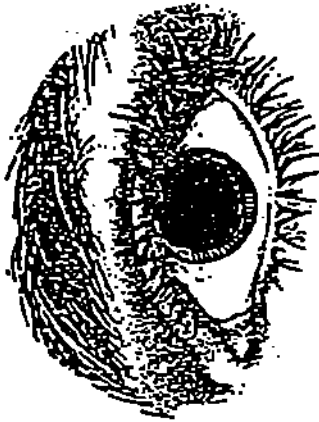


DRUGS THAT WILL INDUCE NYSTAGMUS

- CNS DEPRESSANTS
- PCP
- (MOST) INHALANTS

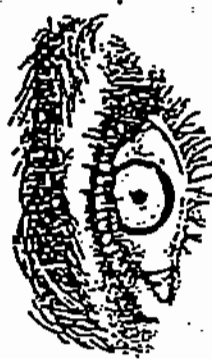


DRUGS CAUSING PUPIL DILATION



- CNS STIMULANTS
- HALLUCINOGENS
- POSSIBLY CANNABIS
(SLIGHT DILATION)

**NARCOTIC ANALGESICS USUALLY
CAUSE PUPIL CONSTRICTION**



DRUGS THAT USUALLY DON'T AFFECT PUPIL SIZE



CNS DEPRESSANTS

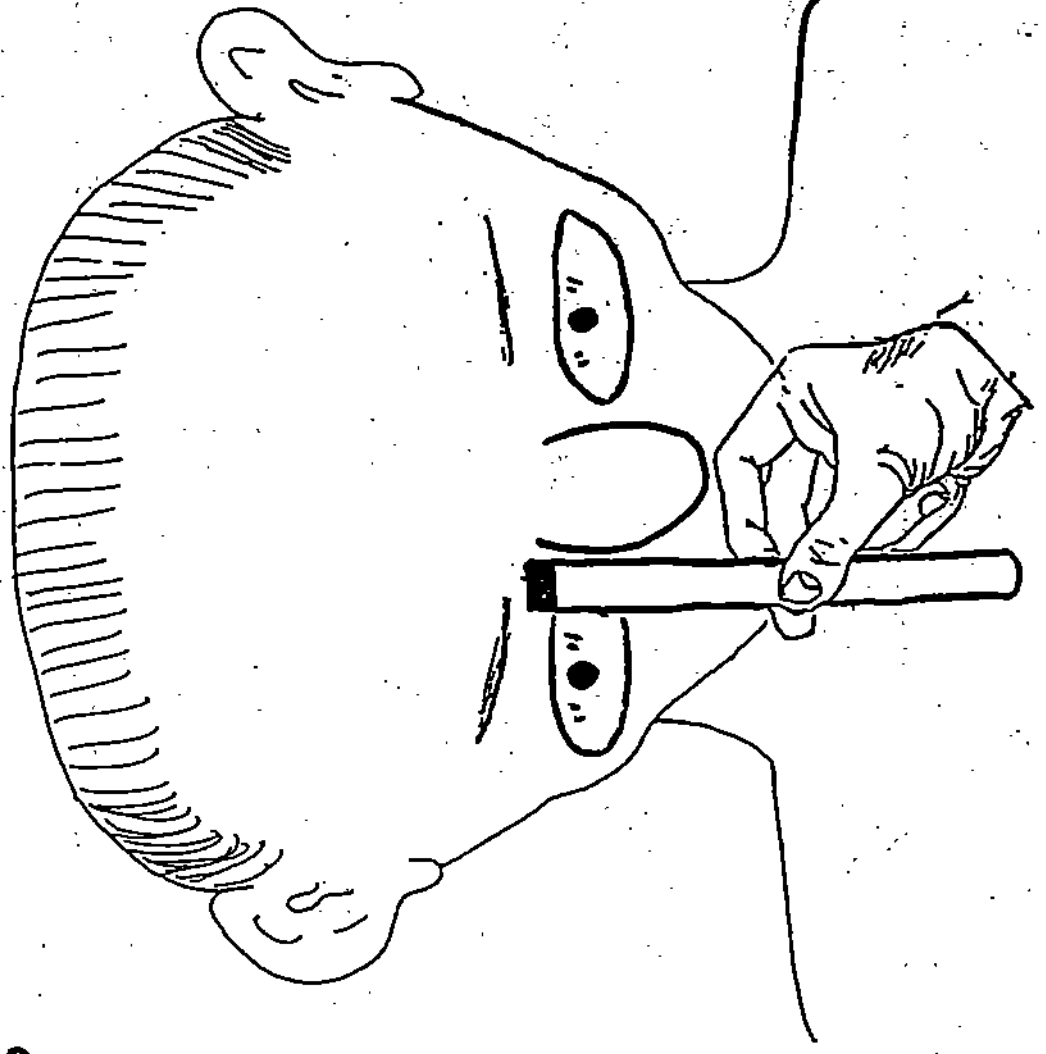
PCP

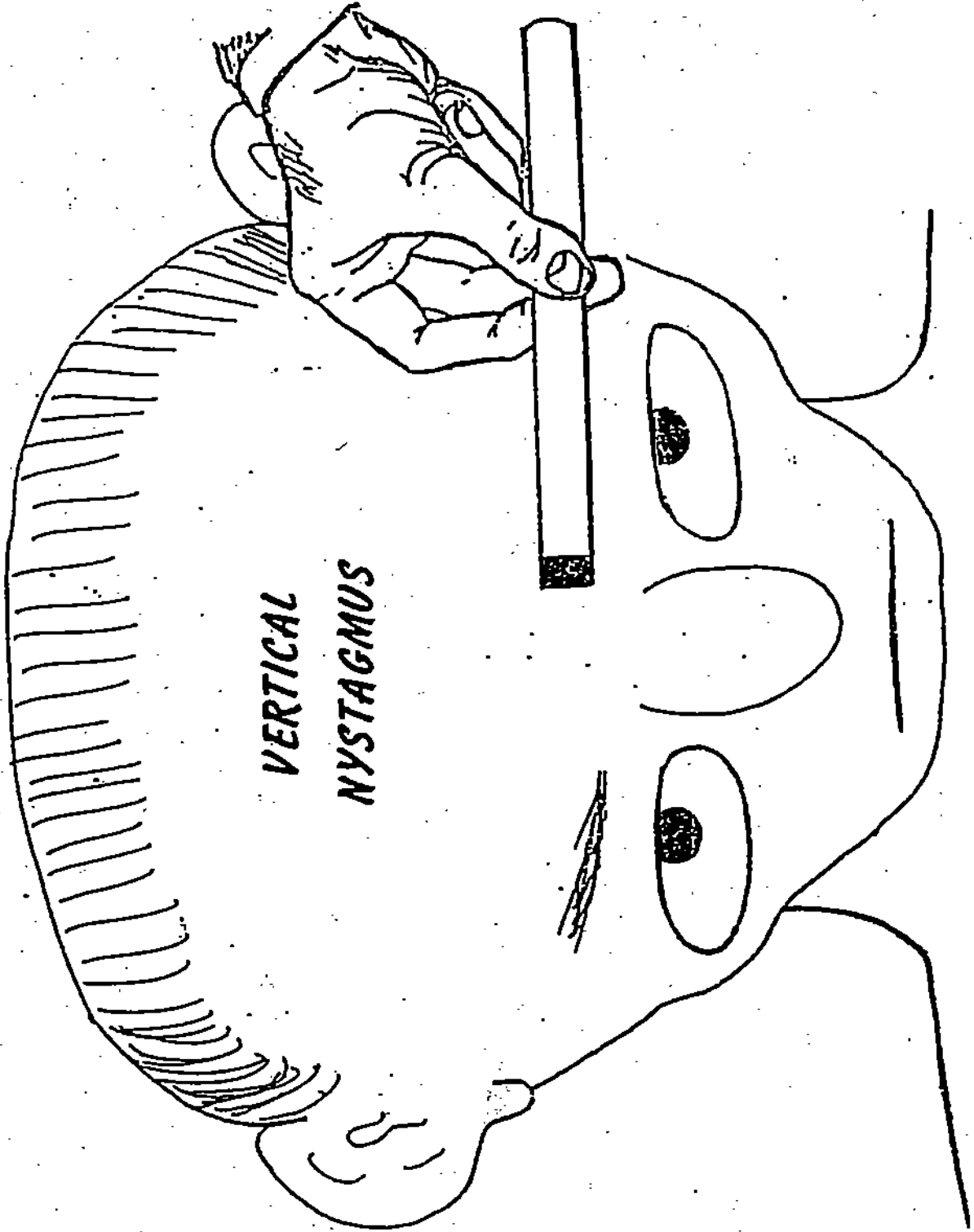
INHALANTS

PCP USUALLY CAUSES

IMMEDIATE ONSET =

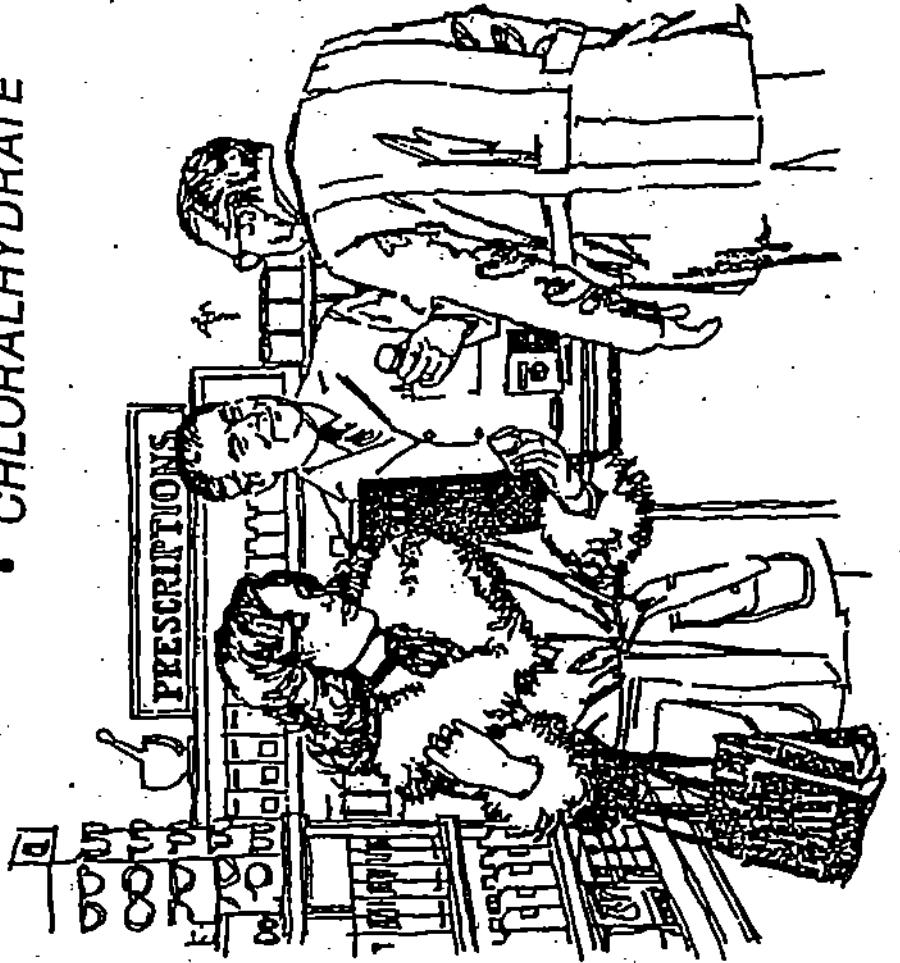
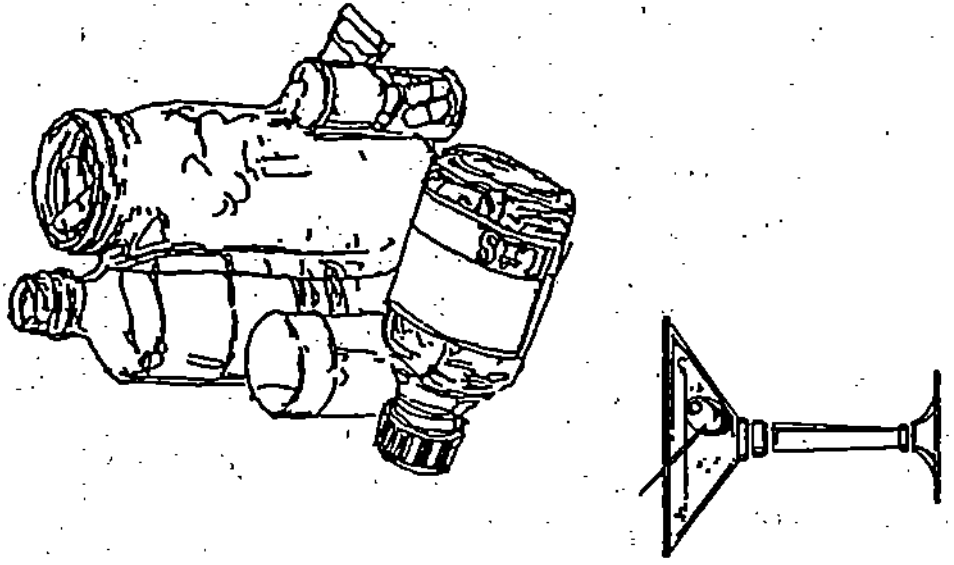
OF NYSTAGMUS





CENTRAL NERVOUS SYSTEM DEPRESSANTS

- ALCOHOL
- BARBITURATES
- VALIUM
- CHLORALHYDRATE



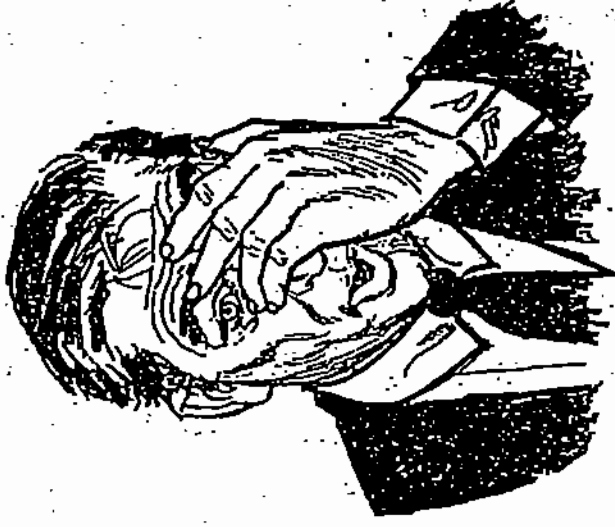
INDICATORS OF CNS DEPRESSANTS INFLUENCE

GENERAL INDICATORS

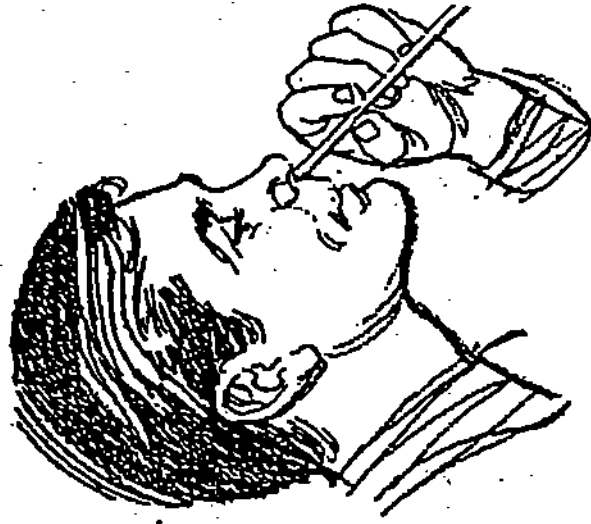
- * DRUNKEN BEHAVIOR AND APPEARANCE
- * UNCOORDINATED
- * DROWSY
- * SLUGGISH
- * DISORIENTED
- * THICK, SLURRED SPEECH

EYE INDICATORS

- * HORIZONTAL GAZE NYSTAGMUS
- * POSSIBLY VERTICAL NYSTAGMUS
- * PUPIL SIZE GENERALLY NORMAL
(BUT DILATED BY METHAQUALONE)



CENTRAL NERVOUS SYSTEM STIMULANTS



✓ COCAINE

✓ AMPHETAMINES

✓ METHAMPHETAMINES

INDICATORS OF CNS STIMULANT INFLUENCE

GENERAL INDICATORS

- * RESTLESSNESS, EXCITATION
- * TALKATIVE
- * EUPHORIA
- * EXAGGERATED REFLEXES
- * ANXIETY
- * GRINDING TEETH
- * REDNESS TO NASAL AREA
- * RUNNY NOSE
- * BODY TREMORS



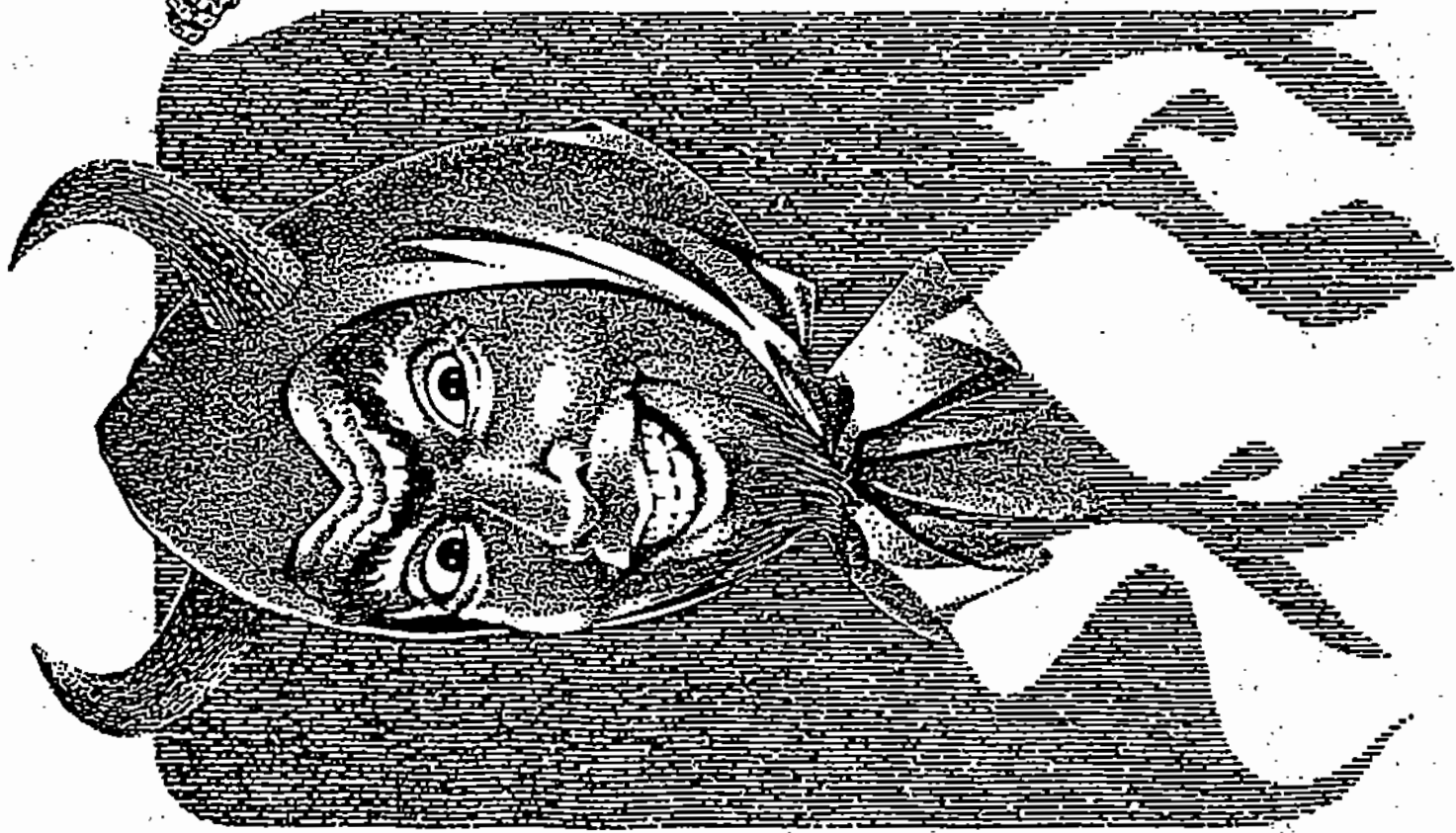
EYE INDICATORS

- * NO NYSTAGMUS
- * PUPILS WILL BE NOTICEABLY DILATED

HALLUCINOGENS

/ LSD

/ PEYOTE





SYNESTHESIA:

A Transposition of Senses

"SEEING SOUNDS"

"HEARING COLORS"

INDICATORS OF HALLUCINOGEN ABUSE

GENERAL INDICATORS

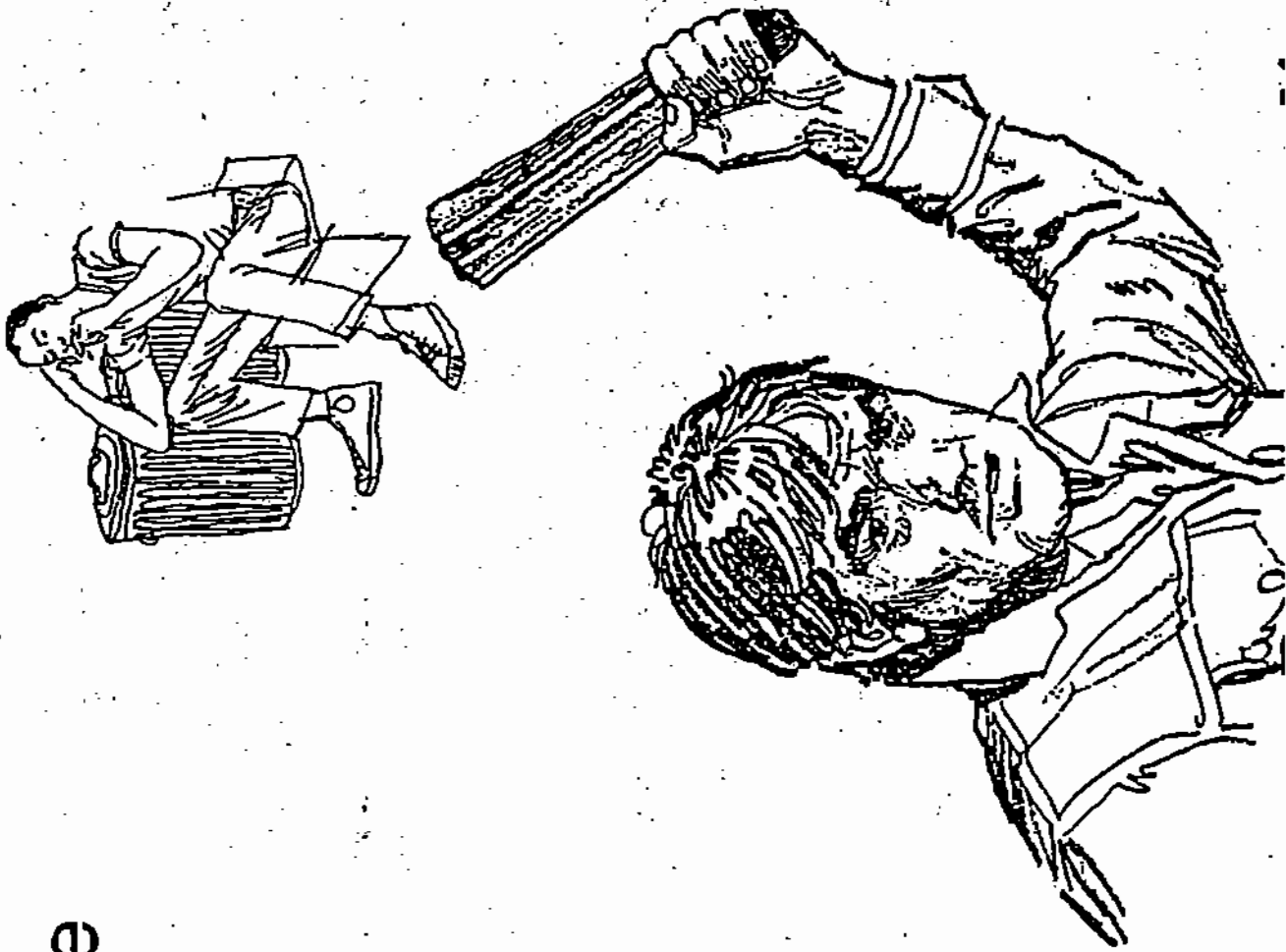
- * HALLUCINATIONS
- * DAZED APPEARANCE
- * DISORIENTATED, UNCOORDINATED
- * BODY TREMORS
- * PERSPIRING
- * PARANOIA
- * DIFFICULTY IN SPEECH
- * NAUSEA



EYE INDICATORS

- * NO NYSTAGMUS
- * PUPILS WILL BE NOTICEABLY DILATED

Phencyclidine (PCP)



INDICATORS OF PCP INFLUENCE

GENERAL INDICATORS

- * WARM TO THE TOUCH
- * PERSPIRING
- * BLANK STARE
- * REPETITIVE SPEECH
- * INCOMPLETE VERBAL RESPONSES
- * CONFUSED
- * MUSCLE RIGIDITY
- * POSSIBLY VIOLENT AND COMBATIVE

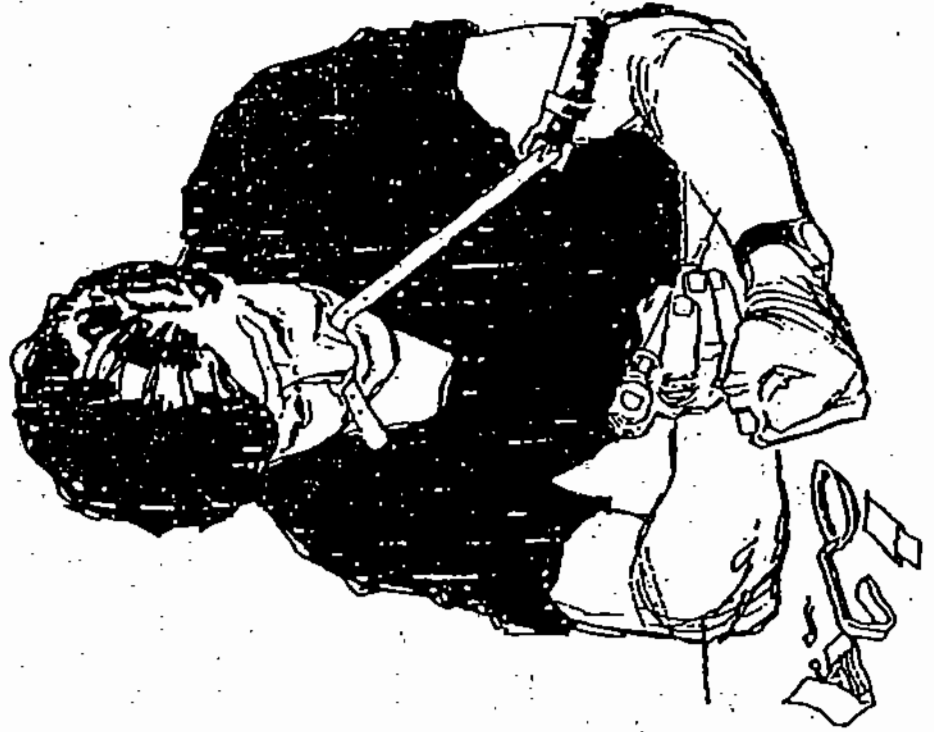
EYE INDICATORS

- * HORIZONTAL GAZE NYSTAGMUS WITH VERY EARLY ONSET
- * VERTICAL NYSTAGMUS
- * PUPIL SIZE GENERALLY NORMAL



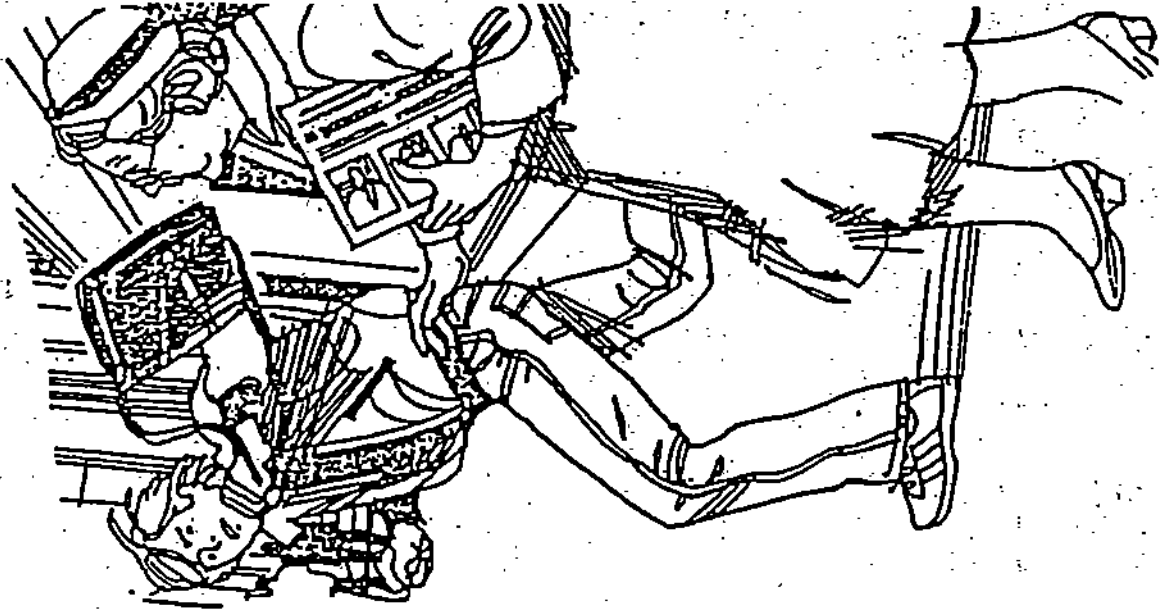
NARCOTIC ANALGESICS

- * HEROIN
- * MORPHINE
- * CODEINE
- * SYNTHETIC OPIATES
(e.g., demerol,
methadone)



THE CONCEPT OF TOLERANCE FOR A DRUG.

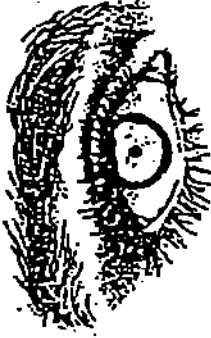
1. THE SAME DOSE OF THE DRUG
WILL PRODUCE DIMINISHING EFFECTS
2. A STEADILY LARGER DOSE IS
NEEDED TO PRODUCE THE SAME
EFFECT.



INDICATORS OF NARCOTIC ANALGESIC INFLUENCE

GENERAL INDICATORS

- * "ON THE NOD"
- * DROOPY EYELIDS
- * DEPRESSED REFLEXES
- * DRY MOUTH
- * FACIAL ITCHING
- * LOW, RASPY SPEECH
- * POSSIBLE PUNCTURE MARKS, "TRACKS"

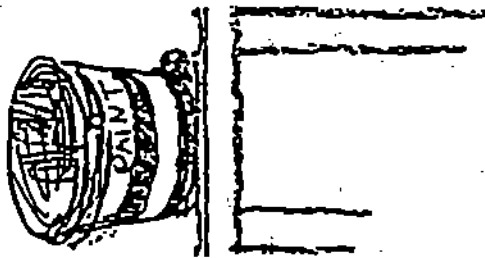
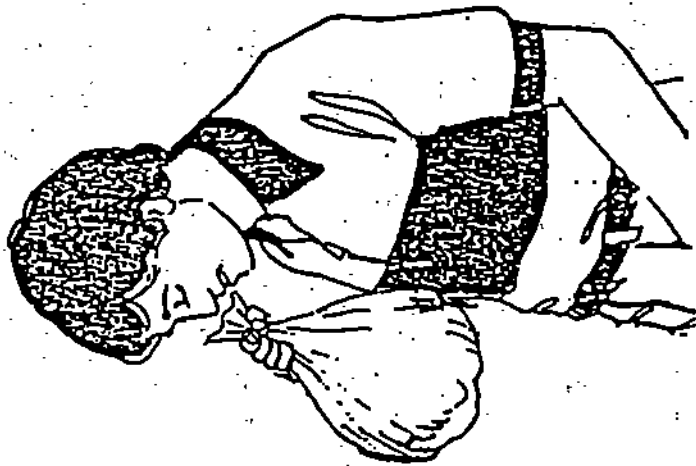


EYE INDICATORS

- * NO NYSTAGMUS
- * PUPILS WILL BE SEVERELY CONSTRICTED

INHALANTS

(e.g., TOLUENE)



INDICATORS OF INHALANT INFLUENCE

GENERAL INDICATORS

- * DISORIENTATION
- * SLURRED SPEECH
- * RESIDUE OF SUBSTANCE ON FACE,
HANDS, CLOTHING
- * CONFUSION
- * POSSIBLE NAUSEA



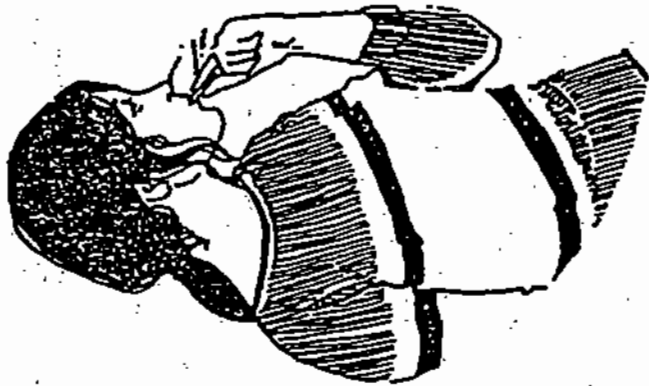
EYE INDICATORS

- * HORIZONTAL GAZE NYSTAGMUS USUALLY
WILL BE PRESENT
- * VERTICAL NYSTAGMUS MAY BE PRESENT
- * PUPIL SIZE GENERALLY NORMAL

CANNABIS

✓ MARIJUANA

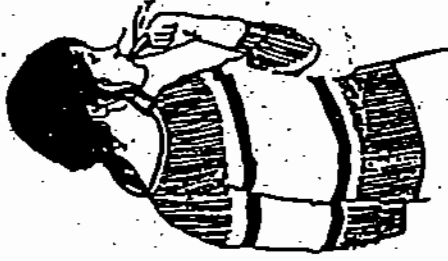
✓ HASHISH



INDICATORS OF CANNABIS INFLUENCE

GENERAL INDICATORS

- * VERY BLOODSHOT EYES, WITH PRONOUNCED VEINS IN THE EYEBALLS
- * BODY TREMORS
- * ODOR OF MARIJUANA
- * DISORIENTED
- * RELAXED INHIBITIONS
- * DIFFICULTY IN DIVIDING ATTENTION



EYE INDICATORS

- * NO NYSTAGMUS
- * PUPIL SIZE NORMAL OR PERHAPS SLIGHTLY DILATED.

GENERAL TYPES OF POLYDRUG EFFECTS

ADDITIVE

(THE TWO DRUGS INDEPENDENTLY
PRODUCE SOME SIMILAR EFFECTS)

EXAMPLE

DEPRESSANTS AND NARCOTIC
ANALGESICS BOTH INDUCE
DROWSINESS.

ANTAGONISTIC

(THE TWO DRUGS PRODUCE SOME
OPPOSITE EFFECTS)

EXAMPLE

STIMULANTS USUALLY
CAUSE PUPIL DILATION,
NARCOTICS USUALLY CAUSE
CONSTRICTION.

OVERLAPPING

(EACH DRUG AFFECTS PEOPLE
IN SOME DISTINCT WAYS)

EXAMPLE

PCP CAUSES NYSTAGMUS
BUT DOESN'T AFFECT PUPIL
SIZE; NARCOTICS CONSTRICT
PUPILS, BUT DOESN'T CAUSE
NYSTAGMUS

