AN ANALYSIS OF THE POTENTIAL LEGAL CONSTRAINTS ON THE USE OF MECHANICAL DEVICES TO MONITOR DRIVING RESTRICTIONS

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16. Abstract

An analysis was made of the potential legal constraints on the use of mechanical devices to supervise drinking and driving restrictions. These conceptual devices would be installed on vehicles operated by restricted drivers. Two devices contain psychomotor tests and are designed to discourage impaired driving; the third is an operating time recorder designed to prevent driving during prohibited times of the day.

Analysis of current law revealed that the proposed devices would be a constitutional means of enforcing drinking and driving restrictions. Methods for use of the devices that will resolve other possible legal constraints are presented.

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1.0 INTRODUCTION

This is one of a set of volumes concerned with the legal feasibility of proposed highway crash countermeasures. It is specifically concerned with mechanical devices that would be placed on vehicles driven by sanctioned traffic offenders. It is believed that these devices would allow courts and driver-licensing authorities to supervise more effectively drivers' compliance with driving restrictions and would deter drivers from committing future offenses, especially driving while intoxicated (DWI).

Three specific countermeasure devices are discussed in the volume: the Drunk Driver Warning System (DDWS); the Continuous Monitoring Device (CMD); and the Operating Time Recorder (OTR). Both the DDWS and CMD are designed to determine whether a driver is too impaired by alcohol, drugs, and fatigue to operate a vehicle safely. The principal emphasis of DDWS and CMD is, however, on alcohol-impaired drivers. The OTR is designed to record the dates and times in which an automobile is operated; this information, in turn, would be used by appropriate authorities to determine whether a driver had complied with restrictions imposed on driving.

The research and analysis leading to preparation of this volume were conducted by staff of the Policy Analysis Division of The University of Michigan Highway Safety Research Institute (HSRI) for the National Highway Traffic Safety Administration (NHTSA) under contract number DOT-HS-7-01536.

1.1 Purpose of Volume

The legal issues that might constrain the implementation of highway crash countermeasures--including mechanical devices to monitor compliance with driving restrictions--are rooted in basic aspects of the American legal system and often involve complex issues of U.S. constitutional law and U.S. Supreme Court interpretations of that law.

Thus any discussion of legal issues and the potential constraints they impose must deal with prevailing constitutional principles. However, to treat these issues in a rigorous legal manner would be beyond the scope of this volume. It is not designed to provide legal advice. Rather, it is designed to be used by public safety officials and highway safety planners as a guide that will permit them to identify problem areas in countermeasure program implementation. Once identified, these problem areas can be discussed with legal counsel.

Within this context, the purpose of this volume is to provide a brief but relatively comprehensive review of potential legal constraints that might be encountered with respect to the DDWS, CMD, and OTR countermeasures. It is designed to: identify important legal issues; show how they might arise; estimate their significance as constraints on the DDWS, CMD, and OTR countermeasures; suggest methods that might be used to resolve those constraints; and assess the overall legal feasibility of those countermeasures.

1.2 Description of the Countermeasures

As stated earlier, three specific countermeasures--the DDWS, the CMD, and the OTR—are discussed in this volume. Their overall purpose is to monitor illegal driving behavior that cannot readily be observed by police officers, and to deter already sanctioned drivers from committing further traffic offenses.

It is envisioned that these devices will be installed on vehicles as the result of the sanctioning process: either by a court, as a condition of probation, pretrial diversion, or earned charge reduction (ECR) (1); or by a driver-licensing authority as an alternative to license revocation or suspension. Thus the three countermeasure devices encounter similar legal issues and for that reason they are discussed together in this volume.

1.2.1 Drunk Driver Warning System (DDWS).

It is believed that the probability of apprehension for driving while intoxicated (DWI) is on the order of from one per 200 (Beitel, Sharp, and Glanz 1975) to one per 2,000 DWI trips (Borkenstein 1975). The great majority of DWI trips go

undetected in part because there are too few police officers to detect and apprehend offenders, and in part because many impaired drivers fail to show the gross signs of impairment that would call them to an officer's attention.

To remedy this, it has been proposed that vehicles be equipped with devices that would prevent or discourage their use by impaired drivers. One such device is the Drunk Driver Warning System (DDWS). The DDWS is a device that measures a driver's impairment by alcohol, drugs, or fatigue. It does so by measuring the quality of the driver's response to a psychomotor test designed to evaluate his physical coordination and reaction time. One such testing device is the so-called Critical Tracking Tester (CTT), developed by the General Motors Corporation (Tennant 1974; Tennant and Thompson 1973). The CTT requires a driver to take a brief test that involves using the steering wheel to stabilize a pointer undergoing a random oscillation pattern. A variety of other testing devices have been developed or hypothesized (Iannini 1976; Brown, Jindal, and Jo 1973; Davis et al. 1971); however, all devices share one common feature—they measure aspects of physical coordination believed to be essential to safe driving ability.

Most testing devices were initially designed as part of an interlock system, which would prevent a driver who failed a test from starting the vehicle. The DDWS, however, is not an interlock system; should a driver fail the test, he is warned that he should not start the vehicle, but is not disabled from so doing. If a driver ignores the warning and attempts to start the vehicle anyway, the vehicle's emergency lights will flash and, at speeds above ten miles per hour, the horn will also sound continuously. The lights and horn are intended not only to warn the driver of his own impaired condition, but also to warn other drivers and police officers that an impaired driver may be on the road. The DDWS is designed so that a driver who fails a coordination test can retake the test but only after a predetermined time, such as 15 to 30 minutes.

1.2.2 Continuous Monitoring Device (CMD). It is believed that driving performance tends to deteriorate over time as the result of fatigue, or

combination of fatigue and impairment by alcohol or drugs. For this reason a driver who initially passes a psychomotor test later might become too impaired to operate a vehicle safely. To remedy this, it has been proposed that a device that continually evaluates driving performance—in effect administering a continuing series of psychomotor tests--be installed on vehicles. One such device is the Continuous Monitoring Device (CMD). The CMD, like the DDWS, is designed to measure a driver's impairment and to warn both the driver of his own impairment and other drivers of an impaired individual's presence. It operates on a principle similar to the DDWS, that is, measuring the driver's coordination and reaction time.

The CMD is based on a device that counts the number of steering corrections made by a driver; if there are too many or too few--either of which indicates driver impairment--a warning signal is sounded to the driver (Moore et al. 1976, pp. 107-10). The CMD also triggers the vehicle's external warning system, that is, flashing lights and a sounding horn, in the same manner as the DDWS.

1.2.3 Operating Time Recorder (OTR). Several classes of drivers are subject to restrictions governing the hours in which they may legally drive. These include minors, aged drivers, habitual traffic offenders, and persons convicted of driving while intoxicated (DWI). Typical time-of-day restrictions limit hours of operation to driving to and from work, or to daytime hours only (2).

It is believed that current methods of enforcing license restrictions, including time-of-day restrictions, are ineffective. Studies (Kaestner and Speight 1974, pp. 56-57; Coppin and VanOldenbeek 1965, pp. 13-14) have shown that a large percentage of suspended and revoked drivers continue to drive in spite of their suspensions or revocations; thus it is reasonable to assume that restricted drivers also operate vehicles during prohibited times of the day. Complicating the problem of enforcement is that, in most states, a police officer cannot determine whether a given driver is the holder of a restricted license unless he is able to physically observe that driver's license. This is likely to occur only after the driver is

stopped for a suspected traffic-law violation or in the course of a routine license and registration check. Such encounters are comparatively rare: the probability of apprehension for a moving traffic violation is estimated to be on the order of one per 10,000 unsafe driving acts (Joscelyn and Jones 1972); and routine checks are relatively infrequent. Consequently, many violators of time-of-day license restrictions are able to escape detection throughout the period of their restriction.

To remedy this, it has been proposed that vehicles used by persons placed under driving restrictions be equipped with devices capable of detecting their unauthorized use. One such device is the Operating Time Recorder (OTR). The OTR is designed to overcome the difficulty of enforcing time-of-day license restrictions by providing a systematic and effective method of ensuring compliance with them.

The OTR--which is currently only a concept—consists of a timing and recording device placed on a vehicle operated by a driver whose driving privileges have been restricted. When an OTR-equipped vehicle is started, the device records the date and time of day of operation. It does not, however, identify the operator of the vehicle, nor does it record the total number of hours in which the vehicle was operated.

OTR records would be examined by persons supervising driving restrictions, such as probation officers and driver-licensing authority officials, to determine whether those restrictions in fact were complied with. Records showing driving during prohibited hours could provide the basis for sanctions such as revocation of probation or revocation or suspension of driving privileges.

1.3 Countermeasure Implementation Scenarios

The first set of legal issues involving the DDWS, CMD, and OTR countermeasures involves the circumstances under which they were installed. As pointed out earlier, the countermeasures discussed in this volume will be implemented primarily through the sanctioning process. Thus, the voluntary installation of these devices for purposes such as fleet monitoring is not discussed in detail in this volume. A second set of issues concerns the relationship between owners and drivers. While

countermeasure devices are directed at specific **drivers**, it is intended that **vehicles** be equipped with these devices; however, vehicles often are shared by sanctioned and nonsanctioned drivers alike.

1.3.1 Installation of Countermeasure Devices. There are four steps in the sanctioning processes in which installation of these countermeasure devices may be required. Three of these involve their imposition by the criminal justice system (courts and prosecutors); the fourth involves imposition by the driver-licensing authority. Sanctioning processes discussed in this volume include:

- **probation**, which is a sanction imposed upon convicted traffic offenders;
- **pretrial diversion**, which is a program offered to drivers charged with—but not convicted of—a traffic offense as an alternative to standing trial for that offense;
- **earned charge reduction** (ECR), which is a program offered to drivers who admit guilt of serious traffic offenses (3), as an alternative to the severe sanctions for conviction of the more serious offense; and
- **driving restrictions**, which are imposed upon drivers by the driver-licensing authority as an alternative to loss (revocation or suspension) of driving privileges.

1.3.2 Owner-Driver Relationships. Numerous owner-driver relationships exist in our society, and a great variety of owner-driver scenarios can be imagined. However, four such relationships are most relevant to countermeasure implementation and these are treated in this volume. They are:

- the sanctioned driver is the sole (registered) owner of a vehicle;
- the sanctioned driver is the sole owner of a vehicle, which others use with his permission;
- the sanctioned driver shares both (registered) ownership and use of a vehicle with one or more persons; and

- the sanctioned driver does not own a vehicle, but rents or borrows vehicles owned by others.

1.4 Content of Volume

The remainder of this volume is organized into three sections. Section 2.0 is devoted to the identification and discussion of legal issues that can arise in connection with the DDWS, CMD, and OTR countermeasures, and the potential constraints that can arise from those issues. Section 3.0 discusses approaches that can be used to resolve those constraints. Section 4.0 discusses the general legal feasibility of the DDWS, CMD, and OTR countermeasures, and presents recommendations concerning their use.

2.0 IDENTIFICATION AND DISCUSSION OF LEGAL ISSUES

Several distinct groups of legal issues are raised by countermeasure programs using the DDWS, CMD, and OTR devices. The first group of issues concerns the authority of a court or driver-licensing authority to order the installation of these devices. The second of these involves constitutional and statutory issues that are raised by installation of these devices. The final group of issues arises from the actual use of the DDWS, CMD, and OTR countermeasures to enforce both traffic laws and driving restrictions.

2.1 Constitutional/Statutory Authority to Order Installation of Mechanical Devices

The first set of legal considerations that affect countermeasure programs involving the DDWS, CMD, and OTR concern whether there exists legal authority to compel installation of these devices. Legal authority includes both the general authority of government to ensure safe highways, and the authority to take specific actions against particular groups of traffic offenders.

2.1.1 General. The use of DDWS, CMD, and OTR devices is ultimately based on the state's so-called "police power," that is, the power to legislate for the public health, safety, welfare, and morals (4). That power is broad and is bounded only by the limits imposed by the U.S. and state constitutions. Unless exercises of the police power infringe fundamental constitutional rights, or are unrelated to legitimate state purposes, then courts will presume them to be constitutional (5). Courts have long recognized highway safety as an important state interest (6), and this interest has justified measures designed to remove drunk or otherwise unfit drivers from the highways (7).

Police agencies have long used mechanical and electronic devices—such

as speed measuring devices (8) and chemical test equipment (9)--to aid them in enforcing traffic laws. Their use initially was challenged by drivers; these challenges, however, did not allege that use of the devices themselves was unconstitutional; rather, it was claimed that they did not provide reliable measurements of vehicle speed or blood alcohol content. In other words, they alleged that the use of test results in evidence, though **not** the use of the device itself, violated due process of law (10). Thus, police agencies are not prohibited from using technological innovations; it is only when their use violates protected individual rights such as those discussed here, or when unreliable evidence is generated, that legal constraints on their use would arise.

It should be pointed out that the devices discussed here are intended to be installed on vehicles driven by persons convicted of (or at least charged with) traffic offenses, especially driving while intoxicated (DWI). Mandatory imposition of the DDWS, CMD, and OTR on the general driving public is not contemplated. As stated earlier, there are two principal means by which the use of countermeasure devices would be required: first, by court order in connection with probation, pretrial diversion, or earned charge reduction (ECR); and second, by exercise of the driver licensing authority's power to restrict driving privileges.

2.1.2 Court Authority to Require Installation of a Device as a Condition of Probation. It is believed that most drivers will be required to install mechanical devices on the vehicles they drive as the result of probation conditions restricting their drinking and driving behavior. In addition, probation has been used longer, more widely, and more consistently than have other rehabilitative procedures; therefore, a more substantial body of law has been developed with respect to probation. For those reasons the primary emphasis of this section is on probation conditions, imposed by a court on a convicted traffic (i.e., DWI) offender.

2.1.2.1 Statutory Authority to Grant Probation. Probation is the release of a convicted offender by the court, under conditions imposed by the court, for a specified period during which imposition of a sentence is

suspended (Killinger, Kerper, and Cromwell 1976, pp. 14-15). In some states the powers to grant probation, and to impose conditions on probationers, were considered "inherent;" in other states it was held that legislative probation required legislative authorization (Killinger, Kerper, and Cromwell 1976, pp. 17-31). Today in all states, a court's general authority to place convicted offenders on probation is expressed in statutes. These statutes also specify the classes of offenders who can be granted probation, and the terms of probation that shall or may be imposed (11). Nonetheless, courts retain considerable discretion as to granting probation and supervising probationers.

A related and more recent trend in the law has been the passage of statutes specifically dealing with the rehabilitation of convicted drunk drivers. These statutes, which commonly appear in state vehicle codes, typically offer the offender an opportunity to avoid mandatory sanctions (such as jail or license suspension) by participating in a program directed at his alcohol abuse; many of these statutes specifically permit a court or driver-licensing authority to issue limited drivers' licenses to those participating in alcohol-rehabilitation programs (12). Despite the existence of these new DWI rehabilitation provisions, many--if not most--drivers participating in rehabilitative programs likely will be assigned by a court as the result of probation, pretrial diversion, or ECR conditions rather than under the terms of a specific DWI rehabilitation statute.

2.1.2.2 Probation Conditions: The Requirement of Reasonableness. Countermeasure programs involving the use of the DDWS, CMD, or OTR involve restrictions in both the liberty and privacy of participants. Such restrictions might be unconstitutional or otherwise illegal if they were imposed on the general public; however, they would be regarded as reasonable in the context of a probation scheme involving a sanctioned traffic offender.

An offender may not be placed on probation without his consent; thus, it can be argued that the probationer agreed to the terms and conditions imposed on him by the court (13). In addition, many courts have characterized probation as an "act of grace" or as a continuation of the

offender's "custody"—reasons justifying the limitation of his rights (14). Therefore, restrictions imposed on a probationer's liberty, which would violate the constitutional rights of an unsanctioned individual, have been upheld by courts.

Notwithstanding these justifications, the general standard governing probation conditions is one of reasonableness. Conditions that are illegal or impossible to carry out, unrelated to the offender's criminal conduct, or unduly restrictive of personal liberty have been considered unreasonable (Little, Young, and Selk 1974, pp. 11-13) (15). Measured by this standard, conditions requiring drivers convicted of alcohol-related offenses to abstain from using alcohol have been upheld by courts as reasonable (16); similarly, probation conditions restricting traffic offenders' use of vehicles have likewise been upheld (17). Therefore, probation conditions that are likely to be enforced using the DDWS, CMD, and OTR are, under current law, reasonable with respect to convicted traffic offenders, especially those convicted of DWI.

Given that conditions restricting driving and drinking are reasonable, the use of mechanical devices is also likely to be found reasonable. Requiring a driver to maintain a DDWS, CMD, or OTR on his vehicle can be analogized to the common condition requiring a probationer to report his activities to his probation officer (18), or to conditions requiring a convicted narcotics offender to submit to periodic physical testing for the presence of narcotics (19), or that a probationer submit to polygraph tests at specified times (20). In those cases probation conditions resulted in substantial invasions of liberty and privacy interests; however, because those devices were reasonably necessary to supervise legitimate probation conditions and were related to the offenders' criminal behavior (and also were agreed to by offenders as an alternative to other sanctions [Killinger, Kerper, and Crowell 1976, pp. 54-55]), such invasions of probationers' liberty and privacy were for the most part upheld.

In addition to due process of law, which generally prohibits the imposition of unreasonable probation conditions, other specific constitutional objections might be made to DDWS, CMD, or OTR countermeasure programs. These issues are discussed more fully later in

the volume.

2.1.2.3 The Relationship Between Probation and Pleas of Guilty. In many cases a convicted traffic offender is placed on probation as the result of having pled guilty. Oftentimes the offender makes a plea agreement with the prosecuting attorney: the offender agrees to plead guilty to some traffic offense and thus avoid the possibility of being convicted of a more serious offense; the prosecutor, in return, recommends to the judge a sentence of probation or agrees to charge the driver with a lesser offense (typically one not involving jail or loss of driving privileges), and avoids the time and expense of a trial. It should be noted that while prosecutors have wide discretion concerning whom they charge and what charges they bring, they do not have power to impose sentences. All a prosecutor can do is make sentencing recommendations to the court (21).

In the event a prosecutor fails to carry out his part of the agreement, the driver who entered a guilty plea and who was subsequently sanctioned could challenge both the adjudication of guilt and the punishment. A prosecutor can be compelled to honor his promises (22), including a promise to **recommend** a specific sentence, but as already stated, not a promise that a certain sentence would in fact be imposed. Even if there was no violation of the agreement on the prosecutor's part, the driver may challenge his guilty plea on the grounds that it was not "voluntary" (made without threats or coercion) (23) and "knowing" (made with knowledge of the rights he agreed to waive and the consequences of his plea) (24). The driver's knowledge and consent must be documented, and unless the trial record shows a knowing and voluntary plea, his plea is subject to challenge (25).

2.1.2.4 Summary. Installation of the DDWS, CMD, and OTR devices most likely will occur in connection with drinking or driving restrictions, imposed as conditions of probation, on drivers convicted of DWI or other traffic offenses. Probation conditions restricting drinking or driving behavior are considered reasonable restrictions of a traffic offender's

liberty, and the use of mechanical devices to enforce those conditions likewise has been considered a reasonable restriction of liberty and privacy interests.

Sentences to probation often result from plea agreements, and accused persons waive important rights in choosing to plead guilty. For those reasons, pleas of guilty must reflect a knowing and voluntary waiver of rights; moreover, prosecuting attorneys must honor the promises they made to obtain those pleas.

Because modern courts sometimes use procedures other than probation to assign offenders to rehabilitative programs, the principal alternatives to probation--pretrial diversion and ECR--are discussed in the following sections.

2.1.3 Court Authority to Require Installation of a Device in Connection with Pretrial Diversion or Earned Charge Reduction (ECR). In the criminal justice system, two relatively new processes have developed through which traffic-law offenders may be sanctioned. The first of these is generally referred to as "pretrial diversion." In pretrial diversion the prosecutor generally agrees to assign an accused offender to a rehabilitation program as a condition of dismissing (dropping) the charges against him (26). Upon his successful completion of the program the prosecution is terminated; however, if the agreed-to conditions are not carried out the prosecution may be resumed.

The second process is referred to as earned charge reduction (ECR). In contrast to pretrial diversion, ECR results in conviction of a less serious offense rather than a dismissal of charges. In ECR, which also has been referred to, in some jurisdictions as "plea under advisement," the accused enters a provisional guilty plea to the serious offense (such as DWI) with which he is charged. At the same time it takes the plea under advisement, the court agrees with the accused that should he fulfill certain conditions (such as participating in an alcohol-rehabilitation program and not committing further alcohol-related offenses) the court will refuse to accept his original guilty plea and accept instead a plea to some lesser charge (27).

In contrast with probation, which is governed by statute, pretrial diversion and ECR frequently are "informal," that is, they are exercises of courts' and prosecutors' discretionary powers. While some states have passed statutes providing for an governing pretrial diversion programs (28), pretrial diversion programs and ECR programs usually result from the absence of statutes authorizing rehabilitation in lieu of mandatory sanctions (29). Owing to the lack of statutory authority governing pretrial diversion and ECR programs, little law has so far been developed concerning these processes. However, the nature of these programs is such that a driver seldom will challenge restrictions placed on his liberty as conditions of entry. This is first of all so because entry into both pretrial diversion and ECR programs require the driver's consent. Moreover, program participants are free to withdraw at any time and choose instead to risk trial, sanctioning, or both.

Two considerations must be pointed out. First, many ECR participants might have initially pled guilty to the more serious charge as part of the overall ECR process, and for that reason the legal issues governing guilty pleas, which were discussed earlier, may apply. Second, entry into a pretrial diversion program is a waiver of one's right to a speedy trial (30). Such a waiver, as in the case of other rights in connection with a guilty plea, must be both knowing and voluntary. Therefore, failure to ensure that program participants properly waive their rights may trigger challenges to sanctions received by participants.

2.1.4 Power of the Driver Licensing Authority to Require Installation of a Device. Licensing drivers and ensuring that only qualified and competent drivers are permitted to operate vehicles are functions carried out by state administrative agencies, commonly called departments of state or departments of motor vehicles. These agencies are created and governed by statutes, which normally impose standards for driver licensing, specify agency procedures, and set out grounds for investigation or disqualification of drivers (31). To that extent, therefore, the powers of driver-licensing authorities are limited.

Many states have passed legislation creating a class of traffic

offenses--frequently including DWI--that are punishable by mandatory license suspension (32). When a driver is convicted of a mandatory-suspension offense, the licensing authority lacks authority to issue him a restricted license: its decision to revoke is a "ministerial" or mandatory act. Thus, in those states any decision to restrict the offender's driving privileges, in lieu of revoking or suspending them, must be made by the court; in a number of states, even the court cannot grant a restricted license when revocation or suspension is called for by statute. Other states have given licensing agencies more or less general authority to issue so-called "hardship licenses" in lieu of punishing drivers with mandatory sanctions (English 1977). In addition, as pointed out earlier, a number of states also authorize licensing authorities to issue restricted licenses to convicted DWI offenders participating in rehabilitation programs. Finally, in many states, the licensing authority has discretion over the length of a mandatory suspension (33); thus, it may in effect "commute" part of the suspension period in exchange for the driver's agreement to accept driving restrictions for the balance of the period. Thus, state law determines if--and under what conditions--a licensing authority can place a convicted traffic-law offender under driving restrictions.

2.1.5 Summary. Authority to install a DDWS, CMD, or OTR device on a vehicle derives from the general authority of a court or driver-licensing agency to impose restrictions on a driver convicted of a DWI or other traffic offenses. There exist four principal processes by which drivers can can come under such restrictions: probation, pretrial diversion, ECR, and administratively-imposed restrictions.

The process by which a particular driver enters a DDWS, CMD, or OTR countermeasure program depends in large part on state laws fixing penalties for traffic offenses and allocating licensing powers to courts and driver-licensing authorities. In states where certain offenses are punishable by mandatory sanctions (such as jail or license suspension), or where no legislative provision exists for the issuance of restricted or "hardship" licenses, informal procedures--such as pretrial diversion or

ECR—are likely to be developed by courts. The theory underlying each of the four processes is the same: the driver has given his consent to restrictions on his liberty as an alternative to receiving more serious sanctions.

The DDWS, CMD, and OTR countermeasures all invade drivers' liberty and privacy interests; however, these restrictions likely will be considered reasonable when imposed on convicted or accused traffic offenders. This is so first of all because the driver has consented to the restrictions in lieu of a complete loss of driving privileges, and also because the devices themselves are reasonable (i.e., related to the original traffic offense) means of monitoring compliance with those restrictions.

Thus, the mandatory installation of a countermeasure device in connection with a restricted driving program is not unreasonable. However, the circumstances under which a driver is assigned to a DDWS, CMD, or OTR program might violate constitutional or statutory provisions. These are discussed in the following section.

2.2 Constitutional/Statutory Issues Affecting Installation of Devices

A second group of legal issues affecting installation of mechanical devices relates to the circumstances under which the device is installed. Two constitutional issues--the equal protection guarantee and the due process of law requirement—are raised by the assignment of offenders to countermeasure programs. This section also deals with two other constitutional issues--cruel and unusual punishment and the right to travel—that might be raised by persons challenging these countermeasure devices. Finally, the impact of state vehicle-equipment statutes on the installation of countermeasure devices is discussed.

2.2.1 The Equal Protection Guarantee.

Implementation of DDWS, CMD, and OTR countermeasure programs requires both the installation of devices on vehicles and the continuing supervision of drivers' compliance with restrictions. These programs are therefore costlier than the simple act of revoking or suspending a license.

Courts or licensing authorities faced with these additional costs may

choose either to assume them or to require restricted drivers to pay all or part of them. Should they follow a policy of requiring drivers to pay costs of countermeasure programs, it is conceivable that indigent drivers (that is, drivers lacking funds) would be excluded from those programs.

Exclusion of indigent drivers from rehabilitative programs, if it occurs, is likely to be challenged under the Fourteenth Amendment to the U.S. Constitution (34). Although the equal protection guarantee prohibits discrimination based on race, religion, and alienage (noncitizenship) without compelling justification (35), and apparently prohibits most differential treatment based on gender (36), its application to distinctions made on the basis of wealth is less clear. Discrimination based on wealth--such as unequal funding of public schools—is not unconstitutional per se (37); on the other hand, the denial of certain procedural safeguards--such as legal counsel or transcripts for appeal—to criminal defendants because they lack funds has been declared unconstitutional (38). It is therefore uncertain whether access to rehabilitative programs--especially those supervised by courts--could be denied to indigent drivers. A number of state statutes require probationers to pay "reasonable costs associated with their prosecution" (39), and some specifically authorize assessing probationers the costs of supervision (40), but these provisions do not appear to authorize assessments against those who are unable to pay. At any rate, the latter practice, that of requiring probationers to bear the costs of their own supervision, has been specifically criticized by the American Bar Association (41).

In addition to challenges based on the possible exclusion of indigents, countermeasure programs could face other challenges alleging that assignment methods are irrational and arbitrary. This is so because a driver who does not own a vehicle, or who shares the ownership of a vehicle with others, might not obtain the owner's consent to have a device placed on the vehicle he drives. Because (as will be explained below) a court cannot order a device installed without the vehicle owner's consent, nonowners of vehicles might be excluded from countermeasure programs and instead face complete loss of driving privileges. The resulting inequality—among equally culpable drivers that some continue to

drive while others are prohibited from so doing--would not necessarily result from differences in wealth. Those affected might include city dwellers, spouses who jointly own vehicles, residents of one-vehicle households, and commercial (truck, bus, and taxi) drivers. It is unlikely, however, that an equal protection challenge would succeed. There is no right to be placed on probation (42); it follows that a driver likewise has no right to participate in pretrial diversion or ECR, entry into which is considered a discretionary function of the prosecutor. Moreover, assuming no discrimination has occurred on the basis of race, religion, alienage, or sex, the differental treatment of offenders that results from DDWS, CMD, or OTR countermeasure programs is constitutionally permissible (43). Finally, it should be pointed out that the countermeasure programs discussed in this volume are not the only alternatives to outright license revocation or suspension. Other alternatives include driving restrictions unsupervised by mechanical devices, driver-improvement classes, and attendance at alcohol-treatment sessions.

2.2.2 The Due Process Requirement. In the United States, vehicles are commonly driven by persons other than their owners; these drivers include employees and relatives of the owner as well as vehicle renters. Because the DDWS, CMD, and OTR countermeasures are directed at individual drivers, but must be installed on vehicles, two or more drivers will commonly operate a vehicle equipped with one of these devices. It is therefore probable that some restricted drivers would regularly operate vehicles owned by others.

When a sanctioned driver operates a vehicle owned by another unsanctioned individual, a mechanical OTR device cannot be placed on that vehicle without the owner's consent. This is because the compelled installation of such a device restricts the owner's use of his property (44), and the Fourteenth Amendment to the U.S. Constitution (45) prohibits the government from depriving a person of property--or restricting his legitimate use of it--without due process of law (46). For that reason, restricting the use of a vehicle by one who had not been found guilty of committing any traffic-law offenses, justifying such restrictions would

violate the due process requirement. In the case of a jointly-owned vehicle, similar due process considerations govern the installation of countermeasure devices. A court ordering installation is therefore required to obtain consent from the other joint owners before ordering a device installed on that vehicle. Where the sanctioned driver is the registered vehicle owner, and other individuals drive his vehicle, these due process issues will not arise, since the vehicle owner legitimately may restrict other persons' use of it. However, in the case of OTR, which cannot distinguish among vehicle operators, other drivers' use of the sanctioned driver's vehicle would create evidential difficulties.

2.2.3 Other Challenges to Installation of Mechanical Devices. Two other constitutional provisions might be raised to the compelled installation of mechanical devices on vehicles. the first of these is the prohibition of cruel or unusual punishment contained in the Eighth Amendment to the U.S. Constitution (47). It might be argued that the presence of a highly conspicuous device (one that when activated commands a great deal of attention) on a vehicle would "brand" its owner as an alcohol abuser or an habitual traffic offender, and thus would be vindictive and therefore cruel. However, the purpose of both the DDWS or CMD countermeasures is to prevent impaired vehicle operation; as an alternative to using an interlock these devices operate by warning both the driver and other traffic of the driver's impairment. Furthermore, it is likely that any testing or monitoring device placed in a vehicle would be small and relatively inconspicuous. Thus, the possibility that a DDWS or CMD would publicize a driver's alcohol problem is only incidental to these devices' primary purpose, and this incidental "branding" is not the type of punishment that the Eighth Amendment prohibits (48). Even if branding in fact took place, each of the situations envisioned in this volume involves a driver having chosen to accept installation of a device as an alternative to more serious sanctions. Thus, neither the countermeasure device itself nor its activation would constitute the type of cruel and unusual punishment prohibited by the Eighth Amendment. Similarly, placing an appropriate notation on a driver's license, specifying

the equipment, drinking, or driving restrictions that were placed on him, would not be "cruel" or "unusual."

The second possible challenge is based on the constitutional "right to travel" (49). Any limitation of an individual's driving privileges is by definition a restriction on his ability to travel; however, this is not an infringement of his constitutional "right to travel." Rather, the constitutional provision prohibits states from denying entry to nonresidents, or from penalizing individuals for having changed their residence; it does not prohibit states from imposing reasonable regulations on the use of vehicles (50). Furthermore, denying or restricting an individual's driving privileges does not deny him access to other means of transportation, such as public transportation or vehicles driven by others.

2.2.4 Vehicle Equipment Regulations. Both the DDWS and CMD warn the driver and other traffic by activiating the vehicle's emergency flashers and horn. It has been suggested that the installation of these devices, or the flashing lights and continuously sounding horns associated with their activation, would violate vehicle equipment regulations. However, neither the installation nor the activtion of the DDWS or CMD appears to violate applicable Uniform Vehicle Code (UVC) equipment restrictions relating to lights or horns (51). The UVC provision governing horns is somewhat less clear: it states that a horn may not emit an "unreasonably loud or harsh sound" (52), nor may a driver sound his horn except when reasonably necessary "to ensure safe operation" (53). Nonetheless, both UVC provisions could be construed to permit use of flashers and horns to warn other traffic of an impaired driver's presence. Finally, even if these devices do violate equipment regulations, the UVC provides for the issuance of permits that would allow the operation of a vehicle equipped with a device that does not otherwise conform to equipment regulations (54).

2.2.5 Summary. Constitutional and statutory provisions govern the implementation of restricted-driving countermeasure programs. Installation of DDWS, CMD, or OTR devices might encounter challenges based on a

number of constitutional or statutory provisions. Two of these might pose constraints on the installation of these devices. The first of these, the guarantee of equal protection of the laws, could pose constraints when drivers assigned to countermeasure programs are required to pay the costs of their supervision. Such a requirement could deny indigent drivers the opportunity to participate in rehabilitative programs in lieu of outright loss of their driving privileges. The second provision, the due process of law requirement, could arise when a sanctioned driver shares with others the ownership of a vehicle, or drives vehicles owned by others. Although mechanical devices are designed to monitor individual drivers, these devices must be installed on vehicles; therefore consent of the vehicle owner as well as that of the driver would be required.

Two other issues—the prohibition of cruel and unusual punishment, and the fundamental right to travel—might provide the basis for challenges to the installation of these devices. Neither issue, however, raises serious legal constraints on countermeasure programs using the DDWS, CMD, or OTR. Finally, equipment statutes patterned after the UVC provisions likely would not constrain the installation of the DDWS, CMD, or OTR devices, nor would they constrain their activation; at any rate, the UVC provides that permits could be issued for vehicles not conforming to equipment regulations.

2.3 Constitutional/Statutory Issues Affecting the Use of Mechanical Devices in Traffic-Law Enforcement

Assuming that a court or driver-licensing authority has power to restrict driving, and a DDWS, CMD, or OTR device legitimately has been placed on a vehicle, further legal issues might arise when information generated by these devices is used to enforce traffic laws or drinking or driving restrictions. These legal issues include: the scientific validity and reliability of these devices; the constitutional requirements governing arrests, searches, and seizures; and evidential limitations of these devices.

2.3.1 Scientific Validity and Reliability. All three countermeasure devices are designed to mechanically detect traffic violations (impaired

driving in the case of DDWS and CMD; driving during prohibited hours in the case of OTR) and thus supplement the visual detection of violations by police officers assigned to traffic patrols. Underlying the use of these mechanical devices is the assumption that because the number of police officers is limited, and because certain traffic violations are not really observable, conventional enforcement strategies must be supplemented by more comprehensive supervision methods. This is commonly done in current traffic law enforcement: radar speed measurements supplement police officers' own observations and judgments of speed, and chemical tests for intoxication supplement officers' observations of drivers' coordination and opinions of their impairment.

If an electronic or mechanical device is used to provide evidence that would be used at the trial of a traffic offense, that evidence must meet certain criteria for scientific validity and reliability: the device must be established as reliable, it must be in good working order, its operator (if any) must be properly trained and qualified, and proper operating procedures must have been followed (Cleary 1972, pp. 514-17, 763-66). In a sense the DDWS, CMD, and OTR devices gather evidence of traffic offenses, since both DWI and violation of license restrictions are traffic offenses in all states. However, it is anticipated that these devices would be used in more or less informal proceedings (compared with the trial of a serious traffic offense), ranging from probation-revocation proceedings to investigations into whether a driver had carried out the terms of a rehabilitation program. Nevertheless, even in these less formal contexts, countermeasure devices must be reliable enough to justify making decisions (such as whether to revoke probation or terminate pretrial divertee status) on the basis of the evidence they produce (55). Unreliable devices also would have little practical value and likely would not be used in the first place.

With respect to the DDWS, it is not certain whether psychomotor tests of the type envisioned for this device would accurately identify impaired drivers. Studies have shown that such tests have limited ability to discriminate, for example, between a driver's alcohol-impaired condition and the same driver's sober state (Kaplan, Lathrop, and Richards 1976).

In one study, the CTT testing mechanism showed a fifty percent false negative rate among drivers having a blood alcohol content (BAC) of .10% (Tennant 1974, p. 52); that is, half of all drivers at or above the accepted level of legal intoxication nonetheless "passed" (56). In theory, these devices could be adjusted to "fail" a larger proportion of tested drivers; however, such an adjustment would generate "false positives," that is, erroneous identification of legally unimpaired drivers as impaired ones. False positives and negatives alike detract from the reliability of a DDWS.

The limited ability of the DDWS to discriminate between impaired and umimpaired drivers probably would preclude its admission into evidence at a DWI trial, for reasons of reliability similar to those precluding the admission of polygraph results. This does not pose a serious constraint to the use of this device, since it is not intended that the DDWS results would replace existing chemical and physical tests as proof of impairment. On the other hand, the limited reliability of DDWS does not appear serious enough to preclude police officers from relying on it as a reason to investigate, for its warning systems, when activated, raise at least a "reasonable suspicion" that a driver might be violating the DWI statute.

The finding that coordination tests are of limited value in determining impairment also applies to the CMD, the only difference being that the CMD-type devices have not been tested as extensively as the psychomotor tests on which the DDWS is based. Thus, the fact that a CMD had been activated would not be acceptable evidence of impairment at a DWI trial; however it, like the DDWS, would provide grounds to stop a vehicle and investigate further.

The OTR device raises somewhat different considerations of reliability. It cannot distinguish among operators of a vehicle, one of them being the restricted driver, the rest unrestricted. The only way to identify the operator with certainty would be to observe him in the act of driving (and observe his driver's license as well to determine whether his driving privileges had in fact been restricted). Of course, once an officer has stopped a vehicle and exmined the driver's license, there is no practical value in examining the vehicle's OTR record as well, since if a violation has occurred, the officer already has evidence of it.

2.3.2 Evidential Difficulties Arising From the Countermeasure Devices. Although the DDWS, CMD, and OTR devices may generate information that could be used in law enforcement, that information would not provide reliable--or possibly even acceptable--proof that a driver had committed a traffic offense. The DDWS and CMD, as pointed out above, raise only a reasonable suspicion the driver might be impaired; the actual determination of impairment still must be made by a police officer in the course of a lawful investigation. OTR presents a different set of evidential issues. Because it records the date and time of operation, but cannot identify the operator, entries showing vehicle use during prohibited hours could reflect either lawful driving behavior by an unsanctioned driver or a violation of restrictions by the sanctioned one.

It is envisioned that all three devices would be used in connection with probation or some other sanctioning scheme, and violations identified by these devices would be considered grounds for further sanctions. As stated before, the most likely process in which drivers would be assigned to a DDWS, CMD, or OTR countermeasure program is probation. For that reason, as well as the existence of a relatively well-developed body of law dealing with probation, the remainder of this section centers on probation revocation.

2.3.2.1 Revocation of Probation. Probation may be "supervised" or "unsupervised." When it is supervised, that function normally is carried out by a judge or by an official of the court, who typically requires the probationer to report at regular intervals. In the event the probationer fails to report, violates the conditions of probation, or commits violations of the law, the probation officer may—if he has a "reasonable belief" that violations have occurred (57)—begin revocation proceedings in court. The revocation proceeding is not a criminal trial (58); for that reason, violations need not be proven beyond a reasonable doubt as they must in trials (59). However, probation status is an interest in "liberty" that is protected by the Due Process Clause of the U.S. Constitution (60). For that reason, probation may not be revoked unless procedural guarantees

such as notice, the opportunity to appear personally, a neutral decision-maker, a written report of findings, and (in some cases) confrontation of witnesses are granted (61).

Termination of limited driving privileges, like probation revocation, involves important personal interests protected by the Due Process Clause (62). However, the procedural requirements that apply to a termination proceeding likely would not be as extensive as those granted in probation-revocation cases, at least where confinement to jail would not be an outcome of the termination proceeding (63).

Termination of pretrial divertee status or expulsion from a ECR program is less likely to be considered as the deprivation of an interest protected by the Due Process Clause than would probation revocation or termination of limited driving privileges. Because decisions to remove participants from pretrial diversion or ECR programs are matters of prosecutorial or judicial discretion, it is thus rather unlikely that courts would hold that drivers are constitutionally "entitled" to remain in those programs (64). However, should a prosecutor or judge act in bad faith, a participant could be entitled to the benefits (such as dismissal or reduction of charges) of the bargain he made. Some recent cases have extended the holding of Santobello v. New York (65), which specifically enforced a plea agreement, to pretrial diversion (66). Moreover, it is unlikely as a practical matter that a judge or prosecutor would remove a driver from a diversion or ECR program in the absence of evidence he considered credible.

2.3.2.2 Presumptions and Burdens of Proof. Proceedings to revoke probation status or terminate driving privileges raise an important legal issue with respect to whether OTR records are sufficient evidence to justify taking action against the driver. As stated earlier, these records do not identify who operated the vehicle at any specific time; for that reason their usefulness, in establishing that a sanctioned individual violated driving restrictions, is limited.

In the enforcement of traffic laws, situations frequently occur in which a vehicle can be identified but its owner cannot be; in some states,

courts and legislatures have responded by enacting legislation raising a presumption that the owner of the vehicle was its driver (67). Despite their label, these owner-driver presumptions actually are "inferences": their legal effect is to permit--but not require--a judge or jury to conclude, from the fact an individual was the registered owner of a vehicle, that he was also its driver at the time of the offense (68).

Presumptions must be consistent with due process of law: courts have required that any presumption be "rational," that is, based on some "natural relationship" between the proven fact (in this case, vehicle ownership) and the presumed (inferred) fact (in this case, driving the vehicle) (69).

Courts have conceded that there in fact exists a relationship between owning a vehicle and driving one. Thus, most courts have upheld rebuttable owner-driver "presumptions" in parking violation cases (70), and some have accepted in prosecutions of more serious offenses (71). Those courts that have refused to apply such "presumptions" appear to have done so because they had not been created by statute (72).

Even though these "presumptions" would in effect compel an owner to introduce evidence that he was not the driver, the Supreme Court has held that such a result would not violate the Fifth Amendment privilege against self-incrimination, discussed more fully below (73). (On the other hand, a statute requiring an owner to rebut the owner-driver presumption by taking the stand and testifying, would violate the privilege [74]).

Thus, assuming a court-created owner-driver "presumption" (rather than a legislatively-created one) is found to be acceptable, a court might use an owner-driver inference, under which the unexplained presence of entries indicating unauthorized driving is sufficient to establish that the owner violated his restrictions. Of course, such an inference would be usable only if the sanctioned driver also were the sole (as opposed to joint) owner of the OTR-equipped vehicle.

Similar considerations would apply when the sanctioned driver is a pretrial divertee or ECR program participant, or is placed under driving restrictions by a driver-licensing authority. The inapplicability of the privilege against self-incrimination, together with the less demanding

standard of proof (most likely a preponderance [majority] of evidence), likely would permit a court or licensing authority to take action against a sanctioned driver-owner on the basis of unexplained entries showing possible violations.

In sum, owner-driver "presumptions" could be applied by courts to reduce the uncertainty inherent in OTR records: where the sanctioned driver owns the OTR-equipped vehicle and the OTR record indicates that violations have occurred, a lack of explanation by the sanctioned driver-owner would be sufficient to justify a finding of violation and its consequences. However, where the sanctioned driver is a joint owner or nonowner, owner-driver presumptions probably could not be used.

2.3.3 Constitutional Provisions Governing Arrest, Search, and Seizure. Although the primary purpose of the DDWS, CMD, and OTR countermeasures is to enforce driving restrictions, it is likely that police officers will rely on these devices as the basis for taking enforcement action. This is especially true with respect to the DDWS and CMD: an activated device could result in the DDWS- or CMD-equipped vehicle being stopped and possibly the driver being arrested as well.

Arrests, searches, and seizures (the latter term includes police stops of vehicles [75]) are governed by the Fourth Amendment to the U.S. Constitution (76), which requires all such encounters to be "reasonable." While the DDWS and CMD countermeasures involve issues relating to arrests or "seizures" of the person, they do not be themselves raise issues relating to searches. This is so because monitoring by these devices occurs with the driver's consent, and consensual searches are reasonable under the Fourth Amendment (77); moreover, in the case of probationers, this is true because their Fourth Amendment rights are limited, owing to the necessity of conducting searches to effectively supervise them (78).

The DDWS and CMD countermeasures raise questions dealing with "seizures" because it is likely that a police officer would investigate vehicles with continuously sounding horns and flashing hazard lights. Because any encounter in which a police officer stops a vehicle is a "seizure," it is required by the Fourth Amendment to be reasonable. The

reasonableness requirement is staisfied either by at least an officer's "reasonable suspicion" that a traffic-law violation has occurred (79) or by randomly stopping traffic for limited investigatory purposes, following objective guidelines such as stopping, at random, every tenth vehicle (80).

Given that there exists some correlation between DDWS and CMD activation and driving impairment, and given also that continuously sounding horns and flashing lights are sufficiently unusual to create in an officer's mind a reasonable suspicion of wrongdoing, the officer would be justified in stopping a vehicle whose DDWS or CMD has been activated. That stop, being justified, would put the officer in lawful position to observe what is in his "plain view" (81), including such evidence as the odor of intoxicants, open containers of liquor, or other aspects of the driver's behavior—such as slurred speech, bloodshot eyes, or poor physical coordination--that indicate impairment (82). These plain-view observations may in turn create "probable cause"—the officer's belief that it is more likely than not that the driver has committed an offense (83)—that the driver had driven while intoxicated. Probable cause is required, under the Fourth Amendment, to justify arresting a driver for an offense such as DWI (84) or compelling him to submit to a chemical test to determine his BAC (85).

In sum, it should be noted that activation of a DDWS or CMD would not be introduced at a DWI trial to prove guilt; however, activation could provide a police officer with justification to stop a vehicle, and conduct an investigation that could lead to the driver's arrest for DWI and his subsequent testing for BAC.

2.3.4 The Privilege Against Self-Incrimination. All three countermeasure devices discussed in this volume may be viewed as requiring a driver to furnish evidence of his own traffic-law violations. For that reason, drivers may claim that the use of evidence obtained from these devices violates the privilege against self-incrimination guaranteed by the Fifth Amendment to the U.S. Constitution (86).

Five elements are essential to claim the privilege against self-incrimination: there must be "compulsion;" that compulsion must be

exerted by the government; the compelled evidence must be "testimonial;" it must be "incriminatory" (that is, it must raise the danger of criminal prosecution); and it must be "personal," that is, asserted neither by, nor in behalf of another (87). Unless all five elements are present, compelled self-incrimination does not exist and the Fifth Amendment challenge cannot succeed. Measured by these criteria, none of the countermeasure devices produces evidence in violation of the Fifth Amendment privilege. This is so because neither OTR records, nor DDWS and CMD warning signals, would be considered "testimonial" by courts. Prior court decisions have held that forced chemical tests for intoxication (88), compelled submission of voice and handwriting specimens (89), and mandatory reporting of one's own traffic crash involvement to the police (90) were all "nontestimonial" in that they did not require the disclosure of private ideas, thoughts, or communication; for that reason, they were not governed by the Fifth Amendment.

Even if these devices were to be considered within the scope of the privilege against self-incrimination, a challenge based on the Fifth Amendment would likely fail anyway. Because drivers will have chosen DDWS, CMD, or OTR installation rather than face other sanctions, their decision to undergo supervision greatly undercuts any claim that any evidence they gave was "compelled" (91). This is especially true in the case of ECR participants and pretrial divertees, who are free to leave the program at any time. In any event, because these countermeasure devices are intended to be installed in conjunction with probation or some other sanctioning scheme, the driver's Fifth Amendment protection against self-incrimination is diminished owing to the need to supervise compliance with drinking or driving restrictions. The diminished privilege against self-incrimination of probationers has been recognized (92); and similar reasoning could apply to drivers placed under administrative sanctions.

2.3.5 Potential Tort Liability of Law-Enforcement Agencies. The DDWS, CMD, and OTR devices are intended to be imposed in connection with restricted-driving programs; for that reason, these countermeasure programs might confer limited driving privileges on persons whose driving

records otherwise would have triggered outright loss (revocation or suspension) of their driving privileges. It has been suggested that governmental authorities that issue licenses to unfit drivers might be sued by persons whom those drivers injure (Hricko 1979, Hricko 1976). However, judges (who assign drivers to probation or ECR programs) are absolutely immune from civil suit (93); and prosecutors (who assign drivers to pretrial diversion programs are also absolutely immune (94). Driver licensing authorities and other nonjudicial agencies may—in states where such suits against the state are permitted (National Association of Attorneys General 1976, pp. 25-43)--be sued for negligently licensing incompetent drivers. There has so far been little case law dealing with this issue, but it appears under current law that unless a driver-licensing agency entirely failed to investigate a driver's qualifications, or ignored specific requirements imposed by statute (95), it probably would not be held liable.

2.3.6 Summary. Even in cases where a court or driving-licensing authority has power to restrict an individual's driving privileges, and where a DDWS, CMD, or OTR device has validly been placed on a vehicle, these devices have limited usefulness in supervising driving behavior. These limitations are caused not only by normal mechanical malfunctions, but also by the purposes for which the devices were designed.

The DDWS and CMD, owing to the limited ability of psychomotor tests to discriminate between impaired and unimpaired drivers, may "pass" substantial numbers of legally impaired persons, and vice versa. The OTR, not only because of its inability to identify vehicle operators but also owing to the great variety of owner-driver relationships in society, will rarely establish with certainty that a specific individual violated his driving restrictions. Thus, these devices would not produce reliable evidence of guilt of DWI or violating license restrictions. This, however, is not a serious constraint on their use, since their primary purpose is not to generate proof of violations.

In addition, these devices, especially the OTR, have limited

effectiveness in enforcing driving restrictions. The DDWS and CMD cannot determine with sufficient reliability whether a driver operated a vehicle while legally impaired; therefore the devices would be of limited use in a restricted driving program requiring the sanctioned driver to avoid "alcohol-related offenses." The OTR is unable to identify drivers and therefore it cannot discriminate between sanctioned and nonsanctioned ones, and thus between legitimate driving and violations of restrictions. However, the use of owner-driver "presumptions" could increase the utility of the OTR in situations where the sanctioned driver owns the OTR-equipped vehicle.

Finally, it has been suggested that courts or licensing authorities could be held civilly liable for permitting drivers, who otherwise could have lost their driving privileges, to continue operating vehicles equipped with these countermeasure devices. This, however, is not a serious constraint: judges and prosecutors are immune from suit; and a licensing authority probably would be held liable only when it ignored statutory licensing criteria or failed to investigate a driver's competence.

2.4 Summary: Potential Law-Based Constraints on the DDWS, CMD, and OTR

It is envisioned drivers would be assigned to DDWS, CMD, and OTR countermeasure programs as the result of probation and other sanctioning schemes. Under these programs the rights of drivers are limited; these restrictions on liberty will have been accepted by drivers as an alternative to jail or outright loss of driving privileges. Under these circumstances, neither the restrictions themselves nor the devices would be unlawful invasions of drivers' liberty or privacy interests.

Assignment of drivers to DDWS, CMD, or OTR countermeasure programs might be challenged as being in violation of the equal protection guarantee if indigent drivers are excluded for lack of funds, or if those who do not own vehicles are excluded. The entry of drivers who share ownership of vehicles, or who drive vehicles owned by others, is constrained by due process requirements which prohibit the forced installation of devices on vehicles owned by unsanctioned persons.

The utility of DDWS, CMD, and OTR information in traffic-law enforcement is somewhat limited. The DDWS and CMD do not establish impairment; however, they do provide police officers with reasonable suspicion concerning the presence of an impaired driver, and could aid in detecting drinking-driving offenders. Similarly, the OTR does not establish that driving restrictions were violated, but it does indicate the possibility that a violation had occurred. Although these countermeasure devices are intended primarily to supervise driving restrictions—not to prove guilt of DWI or driving in violation of restrictions--their utility in showing noncompliance with restrictions is, for the same reasons, also limited. The DDWS and CMD cannot, by themselves, reliably establish that an "alcohol-related violation" had occurred; the OTR, at least when the sanctioned driver is not the sole owner of the OTR-equipped vehicle, cannot identify a violation with reasonable certainty.

Thus, the following legal constraints on the implementation of these countermeasure devices have been identified:

- denying indigent drivers access to countermeasure programs, on account of a lack of funds, might violate the equal protection guarantee;
- compelling the installation of an OTR device on vehicles owned outright or jointly by others, without the owner's consent, would violate due process of law;
- where a driver supervised by the OTR shares the use of a vehicle with others, a record showing the vehicle was driven during prohibited hours might not be sufficient to establish a violation; and
- the unreliability (i.e., presence of false positives and false negatives) of psychomotor tests sharply limits their utility in proving the driver's alcohol impairment.

3.0 APPROACHES TO CONSTRAINT RESOLUTION

This section discusses the principal legal constraints to DDWS, CMD, and OTR implementation that were identified earlier in this volume. Methods of resolving or removing these constraints—the equal protection guarantee, the due process requirement, the evidential limitations of the OTR, and the evidential limitations of the DDWS and CMD—are discussed here.

3.1 Resolving Equal Protection Constraints

As stated earlier, when indigent drivers (that is, those lacking funds) are denied entry into DDWS, CMD, or OTR programs on account of their being poor, violations of the constitutional equal protection guarantee might occur. There are several possible means of resolving this potential constraint. The first of these is to create a pool of publicly owned vehicles, which could be lent at nominal cost to drivers placed under time-or-day driving restrictions. The second resolution strategy involves waiving the costs of supervising indigent drivers assigned to these countermeasure programs. Finally, drivers without funds to pay for an OTR program could be placed into probationary programs that do not involve supervision by mechanical devices. These include, for example, unsupervised restrictions or mandatory safety classes. Any of these strategies could avoid the potential legal challenges that might be raised where poor individuals suffer license revocation or suspension, while wealthier persons are allowed to retain limited driving privileges.

3.2 Resolving Due Process Constraints

As stated earlier, there are many persons who drive vehicles owned by others or who share the use of vehicles with others. Because a court can neither restrict an innocent party's use of his property, nor sanction a person for engaging in lawful behavior, it is constrained by due process of

law with respect to compelled installation of an OTR device on vehicles owned (solely or jointly) by persons other than the sanctioned driver. There exist three principal owner-driver relationships that give rise to such constraints: first, where the driver is a nonowner and uses or rents vehicles owned by others; second, where the sanctioned driver shares the ownership (and use) of a vehicle with others; and third, where the sanctioned driver is the sole owner of his vehicle, but permits others to use his vehicle.

Where the sanctioned driver operates vehicles owned by others (such as family members or employers) or rents vehicles, the vehicle owner's permission must be obtained before any device may be installed. In addition, the owner might be required, as a condition of the court or licensing authority restoring driving privileges to the sanctioned person, to take responsibility for the driver's use of that vehicle. For example, the owner might be asked to maintain records or file affadavits verifying the driver's compliance, and the submission of false records or affidavits could result in the imposition of penalties. As a practical matter, it is likely that some vehicle owners (especially commerical lessors) would not agree to assume the burdens of supervising restricted drivers.

In the common situation where the sanctioned driver shares ownership and use of a vehicle with another (such as a spouse), due process considerations parallel those of the nonowner-sanctioned driver case. The unsanctioned joint owner's permission--and possibly his assistance in supervision as well--would be necessary to restore limited driving privileges.

A different issue is raised when a sanctioned driver is the sole owner of a vehicle. In this case it is possible that some driving of that vehicle would not be his, but rather that of another person using the vehicle with his permission. Therefore, an OTR entry could be attributable to someone other than the restricted driver.

However, by permitting another person to drive, the sanctioned driver/owner is ultimately responsible for the operation of that vehicle. This being the case, a court or licensing authority could restrict the driver not only in his own use of the vehicle, but in his permitting others

to use it. Such restrictions, although somewhat drastic, are similar to probation conditions that have been upheld as reasonable by courts. These conditions have included: prohibiting a convicted bookmaker from having a telephone in his residence (96); forbidding a person convicted of fortune-telling and abetting prostitution from having visitors in her home after dark (97); and prohibiting a person convicted of assaulting a female from employing women or permitting them to reside on his premises unless a male relative were present (98). However, such a restriction would bring about an anomalous result: other members of the owner's household would suffer driving restrictions if the driver retained limited privileges, but would not if he lost them entirely. Faced with such a choice, a driver might choose to suffer revocation or suspension (and possibly drive anyhow and risk the consequences of doing so). In such a situation alternative supervision methods (such as the keeping of logs) might be preferable to broad restrictions on all users of the vehicle.

In sum, even in cases where a sanctioned driver uses other persons' vehicles, shares the use of a vehicle with others, or permits others to use his vehicle, appropriate consent by vehicle owners would enable the sanctioned driver to participate in a countermeasure program using the OTR devices. Whether owners would in fact consent is uncertain; however, that is a practical constraint, not a legal one.

3.3 Evidential Limitations of Records Generated by the OTR

Because the OTR cannot identify vehicle operators, it is necessary that OTR supervision programs involving the device provide that additional information be submitted by vehicle owners or sanctioned drivers. As mentioned earlier, vehicle owners could, as part of consenting to installation of an OTR device, be required to assist in supervising the sanctioned driver. For example, fleet owners such as governmental agencies or utility companies might agree to assign sanctioned drivers only to OTR-equipped vehicles and to submit affidavits to the court or licensing authority, stating that they in fact did so. In households, vehicle owners might keep logs accounting for all vehicle use by sanctioned and unsanctioned drivers alike. Finally, where the sanctioned

driver owns a vehicle, he might be required to account (for example, by keeping logs) for all occasions on which other drivers used the vehicle with his permission. In each of these cases, a person who submits false statements or who later fails or refuses to submit them, could be penalized by the court or licensing authority.

Additionally, as discussed earlier, a court or licensing authority might be able, when the sanctioned driver is the sole vehicle owner, to apply owner/driver inferences, commonly referred to as "presumptions." These presumptions permit the court or authority to infer, from unexplained entries suggesting that unauthorized driving had occurred, that the sanctioned driver in fact violated his driving restrictions.

It should be pointed out that the recordkeeping requirements discussed here might raise practical problems involving vehicle owners' willingness to consent, as well as policy-based objections relating to schemes requiring family members to testify for or against one another (99). Those considerations, however, lie beyond the scope of this volume.

3.4 Evidential Limits of the DDWS and CMD

Owing to the limited correlation between psychomotor test performance and actual driving impairment, a vehicle with an activated DDWS and CMD device can raise only a reasonable suspicion that the driver is impaired. This provides a police officer with justification to stop the vehicle and investigate further; however, it does not by itself establish that the owner is legally impaired. For that reason the DDWS and CMD cannot by themselves establish that a driver committed an "alcohol-related violation."

Even though the DDWS and CMD do not produce evidence sufficient to prove DWI violations, they would have significant utility in enforcing prohibitions of driving after drinking. Such conditions would forbid a sanctioned driver to operate a vehicle after consuming any amount of alcohol, whether or not his BAC was above the legal standard for intoxication. A police officer who is aware of such a restriction (for example, by observing a notation to that effect on the driver's restricted license) and who notices the odor of intoxicants on a driver's breath,

would have sufficient evidence to report that a violation of restrictions had occurred. Imposing a "no driving after drinking" restriction on drivers assigned to DDWS or CMD countermeasure programs would allow for adjusting of the DDWS and CMD devices to produce a very high false-positive rate; they could "fail" large numbers of drivers having BACs well below the legal standard for intoxication.

3.5 Summary

None of the identified legal constraints to the DDWS, CMD, or OTR devices is serious enough to render countermeasure programs using these devices legally unfeasible. However, there do exist constraints that limit the programs' overall utility in curbing unsafe driving behavior.

First of all, equal protection and due process constraints govern the assignment of drivers to countermeasure programs. Denying drivers without funds and nonowners access to these programs might violate the Constitution; moreover, unsanctioned persons who own vehicles cannot be forced to install devices on those vehicles.

Secondly, none of the three devices is capable of producing reliable evidence that could be used in DWI or violation-of-driving restrictions trials. This is not by itself a serious constraint; however, these same characteristics limit the effectiveness of the DDWS, CMD, and OTR in supervising compliance with driving restrictions. Therefore, in some cases, OTR supervision programs might require burdensome recordkeeping schemes to effectively monitor driver compliance, and these schemes might encounter practical and policy-based constraints. Similarly, the DDWS and CMD cannot indicate DWI violations with certainty; however, by raising a reasonable suspicion of DWI they do increase the likelihood that an impaired driver would be detected by the police. More importantly, the DDWS and CMD have significant protential value in enforcing "no driving after driving" restrictions.

It must be emphasized that throughout this volume the legal feasibility of these devices was analyzed on the assumption that they would be imposed on sanctioned drivers only. Any attempt to impose DDWS, CMD, and OTR programs on the general driving public would encounter serious

legal—as well as practical and political—constraints.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The DDWS, CMD, and OTR countermeasures are neither unconstitutional nor unreasonable means of enforcing driving restrictions, imposed on convicted traffic-law violators as conditions of probation, pretrial diversion, ECR, or restricted-license schemes. There exist no constitutional barriers to imposing such restrictions on driving; nor is the employment of the devices themselves unconstitutional. However, the context in which their installation is mandated may give rise to legal issues.

First of all, the exclusion of drivers from countermeasure programs, because of their inability to pay costs of their supervision, might violate the constitutional guarantee of equal protection of laws. However, there exist a number of alternatives by which this constraint may be avoided.

Secondly, attempts to compel the installation of a device on a vehicle owned by someone other than the sanctioned driver, would violate the constitutional due process of law requirement. When, in the case of the OTR, the restricted driver operates another person's vehicle, there arises another significant law-based constraint. This stems from the inability of OTR to identify who operated the vehicle at any particular time. Evidential constraints associated with the OTR device can be overcome when the driver is the sole vehicle owner by applying owner-driver inferences; and in other cases constraints can be resolved by keeping appropriate records. However, practical and policy-based constraints might also be encountered with respect to recordkeeping.

The DDWS and CMD countermeasure devices are incapable by themselves of proving that the driver is impaired, although both devices do provide a police officer with reasonable grounds to stop a vehicle and investigate. That investigation could, in turn, lead to a DWI arrest. On the other hand, because the OTR cannot identify vehicle operators, its utility in establishing violations of driving restrictions is limited. With

respect to the OTR, the recordkeeping requirements referred to earlier would increase the ability of this device to monitor compliance with restrictions. Apart from identifying impaired drivers, the DDWS and CMD would be able to more effectively monitor compliance with restrictions that prohibit driving after drinking.

Thus, we conclude that DDWS, CMD, and OTR countermeasure programs are legally feasible means of monitoring the driving behavior of traffic offenders placed under driving restrictions; however, their overall utility is to some extent limited. It is emphasized that this volume does not address the public acceptance or feasibility of these countermeasure programs, since these are the subjects of studies of NHTSA and by other NHTSA contractors.

BIBLIOGRAPHY

Beitel, G.A.; Sharp, M.C.; and Glanz, W.D. 1975. Probability of arrest while driving under the influence of alcohol. Journal of Studies on Alcohol 36(1):109-16.

Borkenstein, R.F. 1975. Problems of enforcement, adjudication, and sanctioning. In Alcohol, drugs and traffic safety, eds. S. Israelstam and S. Lambert, pp. 655-62. Proceedings of the Sixth International Conference on Alcohol, Drugs and Traffic Safety, 8-13 September 1974, at Toronto, Ontario. Toronto: Addiction Research Foundation of Ontario.

Brown, V.R.; Jindal, G.R.; and Jo, E. 1973. Solid-state breath alcohol vehicle interlock system. Paper presented at Society of Automotive Engineers International Automotive Engineering Congress, 8-12 January 1973, at Detroit, Michigan. SAE paper 730097.

Cleary, E.W., ed. 1972. McCormick's handbook of the law of evidence. 2d ed. St. Paul: West Publishing Company.

Comment, Marital Privilege in Washington: Spouse Testimony and Marital Communications, 54 WASH. L. REV. 65 (1978).

Coppin, R.S., and VanOldenbeek, G. 1965. Driving under suspension and revocation: A study of suspended and revoked drivers classified as negligent operators. Sacramento: State of California, Department of Motor Vehicles.

Davis, P.W.; Sussman, E.D.; Warner, A.; and Leavitt, W.Z. 1971. Alcohol safety interlock systems: A status report. Cambridge, Massachusetts: U.S. Department of Transportation, Transportation Systems Center.

English, J.W. 1977. Hardship licensing. In Traffic Laws Commentary 6(3). Washington, D.C.: National Committee on Uniform Traffic Laws and Ordinances.

Hricko, A.R. 1976. Motor vehicle administrators' potential liability-licensing of alcoholics. Federation of Insurance Counsel Quarterly 26(2):75-86.

Hricko, A.R. 1979. Piercing the driver license veil. Publication by Federation of Insurance Counsel forthcoming.

Iannini, A.A. 1976. Critical coordination tester. Application for letters patent. Washington, D.C.: U.S. Department of Transportation.

Joscelyn, K.B., and Jones, R.K. 1972. A systems analysis of the traffic law system. Summary volume. National Highway Traffic Safety Administration report DOT-HS-800-640.

Kaester, N., and Speight, L. 1974. Oregon study of driver license suspensions. Salem: Oregon Department of Transportation, Motor Vehicles Division.

Kaplan, R.J.; Lathrop, J.; and Edwards, W. 1976. Measurement of risk-related and other dimensions of alcohol-induced impairment. Final report. Ann Arbor: The University of Michigan Highway Safety Research Institute report UM-HSRI-76-34.

Killinger, G.G.; Kerper, H.B.; and Cromwell, P.F., Jr. 1976. Probation and parole in the criminal justice system. St. Paul: West Publishing Company.

Little, J.W.; Young, G.; and Selk, S. 1974. Constitutional protections of convicted DWI offenders selected to receive special sanctions--alcohol countermeasures literature review. Final report. National Highway Traffic Safety Administration report DOT-HS-801-231.

Moore, W.S.; Imperial, J.F.; Tunstall, J.; Wagner, M.H.; and Hurst, P.M. 1976. Systems analysis of alcohol countermeasures. Final report. National Highway Traffic Safety Administration report DOT-HS-801-792.

National Association of Attorneys General. 1976. Sovereign immunity: The liability of government and its officials. Raleigh: National Association of Attorneys General, Committee on the Office of Attorney General.

Palmer, J.A. 1976. Evaluation and description of ASAP judicial systems. Volume V: Phoenix, Arizona case study. Final report. National Highway Traffic Safety Administration report DOT-HS-803-472.

Ruschmann, P.A.; Joscelyn, K.B.; Greyson, M.; and Carroll, H.O. 1979. An analysis of the potential legal constraints on the use of advanced alcohol-testing technology. Publication by National Highway Traffic Safety Administration forthcoming.

Tennant, J.A. 1974. A critical tracking task (CTT) as a countermeasure for intoxicated drivers. In FISITA. XVe Congress Internationale, pp. 48-57. Paris: Societe des Ingenieurs de l'Automobile.

Tennant, J.A., and Thompson, R.R. 1973. A critical tracking task as an alcohol interlock system. Paper presented at Society of Automotive Engineers International Automotive Engineering Congress and Exposition, 8-12 January 1973, at Detroit, Michigan. SAE paper 730095.

Westen and Westin, A Constitutional Law of Remedies for Broken Plea Bargains, 66 CAL. L. REV. 471 (1978).

FOOTNOTES

1. Both "pretrial diversion" and "earned charge reduction" are generic terms that describe programs used by many courts as alternatives to traditional process of the trial and sanctioning of serious traffic (especially DWI) offenders. In pretrial diversion a suspected offender is charged with an offense but completes a rehabilitative program as an alternative to adjudication of that charge. In earned charge reduction, a suspected offender admits guilt of DWI but is not adjudicated guilty; instead, adjudication is suspended while the driver completes a rehabilitative program as an alternative to the sanctions (typically jail and license suspension) for conviction of that charge. To accomplish this, the original charge the driver offered to plead guilty to is reduced to a less serious offense.

2. A number of statutes permit courts or driver licensing authorities to issue restricted drivers' licenses permitting travel to and from work; these include, FLA. STAT. § 322.271 (Supp. 1978) [licensing authority]; IND. CODE ANN. § 9-5-2-1 (Burns Supp. 1978) [court or licensing authority]; and TENN. CODE ANN. § 59-1045 (Supp. 1978) [court]; see also, CAL. VEH. CODE § 14250 (West 1971) [authorizing the Department of Motor Vehicles to issue probationary licenses with reasonable times and conditions it deems appropriate].

   Statutes restricting nighttime driving by unsanctioned persons include: LA. REV. STAT. ANN. § 32:416.1 (West Supp. 1978) [minors under seventeen prohibited from driving between 11:00 p.m. and 5:00 a.m.]; and N.Y. VEH. & TRAF. LAW §§ 501(2)(h), 501(3) (McKinney Supp. 1978-79) [minors under eighteen prohibited from driving between 8:00 p.m. and 5:00 a.m. except under certain specified conditions].

3. While a defendant in an ECR program has admitted guilt, he has not been found guilty by the court. This is because in ECR the defendant offers to plead guilty and the court takes the plea "under advisement," that is, the judge postpones accepting it during the period the defendant participates in the program. "Plea under advisement" is discussed in Section 2.1.

4. 16 AM. JUR. 2d Constitutional Law §§ 259-76 (1964); see generally, Berman v. Parker, 348 U.S. 26 (1954); and Cady v. City of Detroit, 289 Mich. 499, 286 N.W. 805 (1939).

5. Lawton v. Steele, 152 U.S. 133 (1894); see also, 16 AM. JUR. 2d

Constitutional Law § 277-87 (1964).

6. The importance of the public interest in traffic safety was recognized in the following cases: Mackey v. Montrym, --- U.S. ---, 47 U.S.L.W. 4798 (1979); Dixon v. Love, 431 U.S. 105 (1977); California v. Byers, 402 U.S. 424 (1971) (plurality opinion); Schmerber v. California, 384 U.S. 757 (1966); and Hess v. Pawloski, 274 U.S. 352 (1927).

7. Dixon v. Love, 431 U.S. 105 (1977) [habitual traffic offenders as determined by "point system"]; Schmerber v. California, 384 U.S. 757 (1966) [drunk drivers].

8. People v. Donohoo, 54 Ill. App. 3d, 375, 369 N.E.2d 546 (1977) [speed gun]; State v. Finkle, 128 N.J. Super. 199, 319 A.2d 733 (App. Div.), affirmed mem., 66 N.J. 139, 329 A.2d 65 (1974), cert. denied, 423 U.S. 836 (1975) [VASCAR]; State v. Dantonio, 18 N.J. 570, 115 A.2d 35 (1955) [police radar].

9. State v. Duguid, 50 Ariz. 276, 72 P.2d 435 (1937); Lawrence v. City of Los Angeles, 53 Cal. App. 2d 6, 127 P.2d 931 (1942); State v. Haner, 231 Iowa 348, 1 N.W.2d 91 (1941).

10. In prosecutions based on radar speed measurments and chemical test results, the use of the scientific evidence--not the method of gathering it--has been attacked; illustrative cases include Commonwealth v. DiFrancesco, 458 Pa. 188, 329 A.2d 204 (1974) [chemical test for intoxication]; and Dooley v. Commonwealth, 198 Va. 32, 92 S.E.2d 348 (1956) [radar speed measurement]. See generally, the following passage from Breithaupt v. Abram, 352 U.S. 432, 439 (1957): "Modern community living requires modern scientific methods of crime detection lest the public go unprotected. The increasing slaughter on our highways, most of which should be avoidable, now reaches the astounding figure only heard on the battlefield. The States, through safety measures, modern scientific methods, and strict enforcement of traffic laws, are using all reasonable means to make automobile driving less dangerous."

11. See, e.g., CAL. PENAL CODE §§ 1203-1203d (West 1970 and West Supp. 1979); N.J. STAT. ANN. §§ 2A:168-1--2A:168-13 (West 1971); N.Y. PENAL LAW §§ 65.00--65.20 (McKinney 1975 and McKinney Supp. 1978-79); PA. STAT. ANN. tit. 18, §§ 1321(a)(1), 1322, 1354 (Purdon Supp. 1978-79); and TEX. CODE CRIM. PRO. ANN. arts. 42.12(B), 42.13 (Vernon 1977). Typical conditions of probation are set out in the following statutes: CAL. PENAL CODE § 1203.1 (West Supp. 1979); N.J. STAT. ANN. § 2A:168-2 (West 1971); N.Y. PENAL LAW § 65.10 (McKinney Supp. 1978-79); PA. STAT. ANN. tit. 18, § 1354 (Purdon Supp. 1978-79); and TEX. CODE CRIM. PRO. ANN. art. 42.12(B), § 6, art. 42.13, § 5 (Vernon 1977).

12. Typical provisions include: FLA. STAT. §§ 322.28(2)(a)(1), 322.28(2)(e) (1978); KY. REV. STAT. § 186.560(4) (1978); ME. REV. STAT. ANN. tit. 29, § 1312.10A (West Supp. 1978); N.Y. VEH. & TRAF. LAW § 521(f) (McKinney Supp. 1978-79); and W. VA. CODE § 17C-5-2(c) (Supp. 1978).

13. See, State v. Ritchie, 243 N.C. 182, 90 S.E.2d 301 (1955). While this case dealt with suspended execution of sentence, it applies to probation as well.

14. See generally, Morrissey v. Brewer, 408 U.S. 471 (1972); and United States v. Manfredonia, 341 F. Supp. 790 (S.D.N.Y. 1972).

15. People v. Dominguez, 256 Cal. App. 2d 623, 64 Cal. Rptr. 290 (1967); see also, MODEL PENAL CODE § 301.1(20)(1) (1962).

16. Sobata v. Williard, 247 Or. 151, 427 P.2d 758 (1967). However, conditions requiring a chronic alcoholic to refrain from drinking may be impossible to carry out and thus unreasonable; in this regard see, Sweeney v. United States, 353 F.2d 10 (7th Cir. 1965); and State v. Oyler, 92 Idaho 43, 436 P.2d 709 (1968).

17. Probation conditions restricting driving were upheld in the following cases: State v. Sandoval, 92 Idaho 853, 452 P.2d 350 (1969); City of Detroit v. Del Rio, 10 Mich. App. 617, 157 N.W.2d 324 (1968); State v. Gallamore, 6 N.C. App. 608, 170 S.E.2d 573 (1970); and State v. Baynard, 4 N.C. App. 645, 167 S.E.2d 514 (1969).

18. United States v. Manfredonia, 341 F. Supp. 790 (S.D.N.Y. 1972).

19. People v. Zavala, 239 Cal. App. 2d 732, 49 Cal. Rptr. 129 (1966).

20. State v. Wilson, 17 Or. App. 375, 521 P.2d 1317 (1974), cert. denied, 420 U.S. 910 (1975).

21. See, e.g., Spalding v. State, — Ind. App. —, 330 N.E.2d 774 (1975).

22. Santobello v. New York, 404 U.S. 257 (1971).

23. North Carolina v. Alford, 400 U.S. 25 (1970); United States v. Brady, 397 U.S. 742 (1970).

24. Johnson v. Zerbst, 304 U.S. 458 (1938).

25. Boykin v. Alabama, 395 U.S. 238 (1969).

26. See, e.g., WASH. REV. CODE ANN. §§ 10.05.010—10.05.130 (Supp. 1979) [authorizing deferred prosecution of accused alcohol offenders].

27. An illustrative ECR program is the Phoenix, Arizona "Prosecution Alternative to Court Trial" (PACT) program. In PACT, an accused DWI offender agrees to participate in a rehabilitation program in exchange for reduction (not dismissal) of the DWI charge to a lesser traffic offense. Should the offender violate this agreement, he could be tried on the DWI charge (Palmer 1976, pp. 41-51).

28. See, CAL. PENAL CODE §§ 1000-1000.4 (West Supp. 1979) [pretrial diversion of drug offenders]; and §§ 1001-1001.11 (Supp. 1979) [pretrial diversion of offenders other than those convicted of DWI; effective until January 1, 1980]; see also, N.J. CT. R. 3:28 (1979) [pretrial intervention]; and PA. R. CRIM. PRO. 175-185 (1974) [accelerated rehabilitative disposition].

29. See, e.g., ARIZ. REV. STAT. ANN. § 28-692.01 (Supp. 1978-79); and OHIO REV. CODE ANN. §§ 4507.16, 4511.99(A) (Page Supp. 1978). See also, State v. Greenwood, --- N.H. ---, 335 A.2d 644 (1975), which held that the state's DWI statute made license revocation an "administrative" (mandatory) act of the court; thus the court was forbidden to commute any of the license revocation even if that penalty resulted in hardship to the convicted driver.

30. U.S. CONST. amend. VI. This provision was made applicable to the states in Klopfer v. North Carolina, 386 U.S. 213 (1967). In Baker v. Wingo, 407 U.S. 514 (1972), the Supreme Court held that a determination of whether a speedy trial is denied depends on four factors, one of which is whether the accused in fact demands a speedy trial.

31. See, e.g., MICH. COMP. LAWS ANN. §§ 257.301—257.327 (1977 and Supp. 1978-79).

32. UNIFORM VEHICLE CODE §§ 6-205 (Supp. II 1976) [vehicular homicide, DWI, operation of uninsured vehicle], 6-205.1 (Supp. II 1976) [refusal to submit to chemical tests].

33. See, e.g., MICH. COMP. LAWS ANN. §§ 257.319 (1977) [mandatory suspension period of 90 days to two years], 257.320 (1977) [discretionary suspension of up to one year].

34. U.S. CONST. amend. XIV.

35. Loving v. Virginia, 388 U.S. 1 (1967); Takahashi v. Fish and Game Commission, 334 U.S. 410 (1948).

36. Reed v. Reed, 404 U.S. 71 (1971).

37. San Antonio Independent School District v. Rodriguez, 411 U.S. 1 (1973).

38. Argersinger v. Hamlin, 407 U.S. 25 (1972); Douglas v. California, 372 U.S. 353 (1963); Griffin v. Illinois, 351 U.S. 12 (1956).

39. MICH. COMP. LAWS ANN. § 769.3 (1968); N.J. STAT. ANN. § 2A:168-2 (West 1971). These provisions, at least when applied to persons able to pay, are constitutional; in this regard see, Fuller v. Oregon, 417 U.S. 40 (1974).

40. See, e.g., NEB. REV. STAT. § 29-2262(2)(n) (Cum. Supp. 1978), which was applied to a DWI rehabilitation program in State v. Muggins, 192 Neb. 415, 222 N.W.2d 289, 291-92 (1974).

41. AMERICAN BAR ASSOCIATION STANDARDS RELATING TO PROBATION § 3.2(f) (1970).

42. See, e.g., People v. Molz, 415 Ill. 183, 113 N.E.2d 314 (1953).

43. See, e.g., Marshall v. United States, 414 U.S. 417 (1974) [admission to narcotics rehabilitation program]; Oyler v. Boles, 368 U.S. 448 (1962) [decision whether to prosecute]; and Commonwealth v. Kindness, 247 Pa. Super. Ct. 99, 371 A.2d 1346 (1977) [admission to accelerated rehabilitation program]; but see, State v. Leonardis, 71 N.J. 85, 363 A.2d 321 (1976), which prohibited a prosecutor's blanket exclusion of certain offenders from a pretrial diversion program in light of statutory provisions requiring that offenders be considered on an individual basis.

44. The "privilege" of driving (i.e., holding a driver's license) has been characterized by the U.S. Supreme Court as an "important interest" protected by the Due Process Clause in Bell v. Burson, 402 U.S. 535 (1971). See also, Dixon v. Love, 431 U.S. 105 (1977). On that basis it can be argued that restricting one's driving likewise affects an important interest and is likewise governed by the Due Process Clause.

45. U.S. CONST. amend. XIV.

46. 16 AM. JUR. 2d Constitutional Law §§ 366-67, 550 (1964).

47. U.S. CONST. amend. VIII. This guarantee was made applicable to the states in Robinson v. California, 370 U.S. 660 (1962).

48. See, Wisconsin v. Constantineau, 400 U.S. 433 (1971), which held unconstitutional a statute that allowed police chiefs to post the names of "problem drinkers" to whom intoxicating liquors cannot be sold or given. The Court termed the posting of such a stigma or badge of disgrace that notice and opportunity to be heard were required beforehand. It did **not** hold that the posting was cruel or unusual punishment, only that the method of posting violated due process.

49. The U.S. Constitution does not explicitly mention a "right to travel"; however, it has been recognized as a fundamental personal right under the Constitution; see, Shapiro v. Thompson, 394 U.S. 618 (1969); and United States v. Guest, 383 U.S. 745 (1966).

50. Wells v. Malloy, 402 F. Supp. 856 (D. Vt. 1975); Love v. Bell, 171 Colo. 27, 465 P.2d 118 (1970); State v. McCourt, 131 N.J. Super. 283, 329 A.2d 577 (App. Div. 1974); Berberian v. Petit, --- R.I. ---, 374 A.2d 791 (1977).

51. UNIFORM VEHICLE CODE §§ 12-220 (1972 and Supp. II 1976) [vehicular hazard warning signals], 12-401 (1972 and Supp. II 1976) [horns and warning devices].

52. UNIFORM VEHICLE CODE § 12-220(a) (1972).

53. UNIFORM VEHICLE CODE § 12-401(a) (1972).

54. UNIFORM VEHICLE CODE § 12-102 (Supp. II 1976).

55. In probation-revocation cases, for example, violation of conditions normally must be proved by a preponderance (majority) of the evidence; see, e.g., People v. Crowell, 53 Ill.2d 447, 292 N.E.2d 721 (1973); and Johnson v. State, 537 S.W.2d 16 (Tex. Crim. App. 1976).

56. That same study reported that a CTT device, calibrated to produce no false positives, produced a 25 percent false negative rate at a BAC of .15%, the formerly accepted level of legal intoxication (Tennant 1974, p. 52).

57. See, Morrissey v. Brewer, 408 U.S. 471 (1972). The facts of this case deal with parole but its holding applies to probation as well.

58. Morrissey v. Brewer, 408 U.S. 471 (1972); People v. Sweeden, 116 Cal. App. 2d 891, 254 P.2d 899 (1953); Lynch v. State, 159 Tex. Crim. 267, 263 S.W.2d 158 (Crim. App. 1953).

59. A majority of states have held that violation of probation conditions may be proved by only a preponderance (majority) of evidence; representative decisions include: People v. Crowell, 53 Ill.2d 447, 292 N.E.2d 721 (1973); and Johnson v. State, 537 S.W.2d 16 (Tex. Crim. App. 1976). In People v. Coleman, 13 Cal. 3d 867, 533 P.2d 1024, 120 Cal. Rptr. 384 (1975), the California Supreme Court held that violations must be proved by "clear and convincing" evidence.

60. Gagnon v. Scarpelli, 411 U.S. 778 (1973).

61. Gagnon v. Scarpelli, 411 U.S. 778 (1973).

62. See, e.g., Nicholas v. Secretary of State, 74 Mich. App. 64, 253 N.W.2d 662 (1977).

63. See generally, Mathews v. Eldridge, 424 U.S. 319 (1976) which sets out the factors to be considered in deciding what procedural safeguards are to be granted: (a) the private interest that will be affected by the official action; (b) the risk of an erroneous deprivation under existing procedures, and the probable value of additional or substitute procedures; and (c) the public interest at stake, including avoiding the additional cost and administrative burden of additional procedures.

64. See generally, Arnett v. Kennedy, 416 U.S. 134 (1974); Perry v. Sindermann, 408 U.S. 593 (1972); Board of Regents v. Roth, 408 U.S. 564 (1972); and Flemming v. Nestor, 363 U.S. 603 (1960).

65. Santobello v. New York, 404 U.S. 257 (1971).

66. See, e.g., United States v. Garcia, 519 F.2d 1343 (9th Cir. 1975); Commonwealth ex rel. Hancock v. Melton, 510 S.W.2d 250 (Ky. 1974); and People v. Reagan, 395 Mich. 306, 235 N.W.2d 581 (1975); see generally, Westen and Westin, A Constitutional Law of Remedies for Broken Plea Bargains, 66 CAL. L. REV. 471 (1978).

67. See, e.g., CONN. GEN. STAT. ANN. § 14-107 (West Supp. 1979); MASS. ANN. LAWS ch. 90, § 2 (Michie/Law. Co-Op 1975); and PA. STAT. ANN. tit. 75, § 6342 (Purdon 1977).

68. The legal effect of a "presumption" versus that of an "inference" is explained, for example, in Commonwealth v. Di Francesco, 458 Pa. 188, 329 A.2d 204 (1974), which dealt with the "presumptions" regarding intoxication raised by chemical test results.

69. Tot v. United States, 319 U.S. 463 (1943).

70. See, e.g., City of Chicago v. Hertz Commercial Leasing Corp., 71 Ill. 2d 333, 375 N.E.2d 1285, cert. denied, — U.S. —, 99 S. Ct. 315 (1978); People v. Kayne, 286 Mich. 571, 282 N.W. 248 (1938); City of Portland v. Kirk, 16 Or. App. 329, 518 P.2d 665 (1974); and Cantrell v. Oklahoma City, 454 P.2d 676 (Okla. Ct. Crim. App. 1969), cert. denied, 396 U.S. 1010 (1970).

71. See, e.g., State v. DeBiaso, 6 Conn. Cir. Ct. 297, 271 A.2d 857 (App. Div. 1970) [reckless driving]; State v. Jordan, 5 Conn. Cir. Ct. 561, 258 A.2d 552 (App. Div. 1969) [leaving the scene of a traffic crash]; and Commonwealth v. Pauley, 368 Mass. 286, 331 N.E.2d 901 (1975) [evasion of toll payment]; see also, State v. Kay, 151 N.J. Super. 255, 376 A.2d 975 (Mercer County Court 1977) [leaving the scene of a traffic crash].

72. In most states a BAC level of .10% or above permits a finding of intoxication on the basis of test results alone; in some states a BAC level at or above .10% requires a finding of intoxication. In addition, in most states a BAC level between .05% and .10% can, together with other evidence, support a finding of intoxication. Therefore, many drivers tested at the roadside will have BAC levels indicating possible or even probable intoxication.

73. Barnes v. United States, 412 U.S. 837 (1973).

74. Commonwealth v. Slaybaugh, 468 Pa. 618, 364 A.2d 687 (1976).

75. Delaware v. Prouse, --- U.S. ---, 47 U.S.L.W. 4323 (1979); United States v. Martinez-Fuerte, 428 U.S. 543 (1976); United States v. Brignoni-Ponce, 422 U.S. 873 (1975).

76. U.S. CONST. amend. XIV. This provision was made applicable to the states in Wolf v. Colorado, 338 U.S. 25 (1949); however, evidence obtained in violation of the Fourth Amendment was not required to be excluded from criminal trials until Mapp v. Ohio, 367 U.S. 643 (1961), was decided.

77. Schneckloth v. Bustamonte, 412 U.S. 218 (1973).

78. Latta v. Fitzharris, 521 F.2d 246, 249-50 (9th Cir. 1975); People v. Mason, 5 Cal. 3d 759, 488 P.2d 630, 97 Cal. Rptr. 302 (1971), cert. denied, 405 U.S. 1016 (1972). But see, People v. Peterson, 62 Mich. App. 258, 233 N.W.2d 250, 255 (1975) [waiver of Fourth Amendment rights held to be coerced].

79. In Delaware v. Prouse, — U.S. —, U.S.L.W. 4323 (1979), the Court indicated the "reasonableness" requirement would, depending on the situation, be met by probable cause or by some less stringent test (such as "reasonable suspicion"). The Court cited United States v. Brignoni-Ponce, 422 U.S. 873 (1975), as authority to the effect that some warrantless traffic stops could be conducted on the basis of less than probable cause.

80. Delaware v. Prouse, — U.S. —, —, 47 U.S.L.W. 4323, 4327 (1979) (concurring opinion).

81. Coolidge v. New Hampshire, 403 U.S. 443 (1971).

82. In State v. Clark, — Or. —, 593 P.2d 123 (1979), the court took judicial notice of the following symptoms or "signs" of alcohol intoxication: (1) odor of the breath; (2) flushed appearance; (3) lack of muscular coordination; (4) speech difficulties; (5) disorderly or unusual conduct; (6) mental disturbance; (7) visual disorders; (8) sleepiness; (9) muscular tremors; (10) dizziness; and (11) nausea.

83. Brinegar v. United States, 338 U.S. 160 (1949); Carroll v. United States, 267 U.S. 132 (1925).

84. 5 AM. JUR. 2d Arrest § 2 (1962).

85. In Schmerber v. California, 384 U.S. 757, 768-69 (1966), the U.S. Supreme Court appeared to require both probable cause and a valid arrest before a driver could be required to submit to a chemical test. In Cupp v. Murphy, 412 U.S. 291 (1973), the Court permitted the taking of "highly evanescent" evidence without a formal arrest where there existed probable cause to make the arrest. Reading Schmerber and Cupp together, therefore, provides justification for prearrest chemical testing of a driver where there exists probable cause to arrest the driver for DWI. This result was reached in State v. Oevering, — Minn. —, 268 N.W.2d 68 (1978).

    Some courts, however, apparently require less than probable cause to test; in this regard see, State v. Mitchell, 245 So.2d 618 (Fla. 1971) ["clear indication" that the test would produce evidence of intoxication]; and People v. Graser, 393 N.Y.S. 2d 1009 (Amherst Town Court 1977) [apparently requiring only a reasonable suspicion]. However, for reasons explained in another volume in this series (Ruschmann et al. 1979) the reasoning of the latter two cases is probably based on a misreading of the Supreme Court's holdings.

86. U.S. CONST. amend. V. This provision was held applicable to the states in Malloy v. Hogan, 378 U.S. 1 (1964).

87. Fisher v. United States, 425 U.S. 391 (1976) ["personal" requirement]; Garrity v. New Jersey, 385 U.S. 493 (1967) ["compulsion" requirement]; Schmerber v. California, 384 U.S. 757 (1966) ["testimonial" requirement]; Boyd v. United States, 116 U.S. 616 (1886) ["incriminating" requirement].

88. Schmerber v. California, 384 U.S. 757 (1966); Campbell v. Superior Court, 106 Ariz. 542, 479 P.2d 685 (1971); People v. Brown, 174 Colo. 513, 485 P.2d 500 (1971), cert. denied, 404 U.S. 1007 (1972).

89. United States v. Dionisio, 410 U.S. 1 (1973); Gilbert v. California, 388 U.S. 263 (1967); United States v. Wade, 388 U.S. 218 (1967).

90. California v. Byers, 402 U.S. 424 (1971) (plurality opinion); State v. Dyer, 289 A.2d 693 (Me. 1972); People v. Samuel, 29 N.Y.2d 252, 277 N.E.2d 381, 327 N.Y.S. 2d 321 (1971); Banks v. Commonwealth, 217 Va. 527, 230 S.E.2d 256 (1976).

91. See generally, North Carolina v. Alford, 400 U.S. 25 (1970).

92. United States v. Manfredonia, 341 F. Supp. 790 (S.D.N.Y. 1972);

State v. Heath, 343 So.2d 13 (Fla. 1977); State v. Wilson, 17 Or. App. 375, 521 P.2d 1317 (1974), cert. denied, 420 U.S. 910 (1975).

93. Stump v. Sparkman, 435 U.S. 349 (1978).

94. Imbler v. Pachtman, 424 U.S. 409 (1975).

95. See, Papelian v. State, 65 Cal. App. 3d 958, 135 Cal. Rptr. 665 (1976); Davis v. Jenness, --- Iowa ---, 253 N.W.2d 610 (1977); and Lifer v. Raymond, 80 Wis. 2d 503, 259 N.W.2d 537 (1977); see also, Southworth v. State, 369 N.Y.S.2d 980 (Ct. Cl. 1975), reversed, 62 A.D.2d 731, 405 N.Y.S.2d 548 (1978).

96. People v. Stanley, 162 Cal. App. 2d 416, 327 P.2d 973 (1958).

97. State v. Davis, 243 N.C. 754, 92 S.E.2d 177 (1956).

98. State v. Rogers, 221 N.C. 462, 20 S.E.2d 297 (1942).

99. Testimony by one spouse concerning the other's conduct is restricted by the so-called "husband-wife" privilege. In most states one spouse cannot be forced to testify for or against the other, in any proceeding, without his or her consent. Some states limit the privilege, for example, to bar only compelled adverse testimony. The subject of husband-wife privilege is discussed generally in Comment, Marital Privilege in Washington: Spouse Testimony and Marital Communications, 54 WASH. L. REV. 65 (1978).