Alcohol interlocks as a condition of licence reinstatement
The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries.

TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.
Alcohol interlocks as a condition of licence reinstatement

Douglas J. Beirness
Herb M. Simpson

Financial support provided by:

GUARDIAN INTERLOCK SYSTEMS CORP.
The Toronto symposium and the production of this report were supported by Guardian Interlock Systems.

The author acknowledges the contributions of all participants at the Toronto workshop, particularly Bob Voas, Paul Marques, Claude Dussault, Bo Lönegren, and Les Libbesson who made presentations and/or facilitated the discussion on various topics.

The author also wishes to thank Robyn Robertson, TIRF Research Associate, for her assistance both during and following the symposium.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>v</td>
</tr>
<tr>
<td><strong>1.0 Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Purpose of the Report</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Scope of the Report</td>
<td>4</td>
</tr>
<tr>
<td><strong>2.0 Program Options</strong></td>
<td>5</td>
</tr>
<tr>
<td>2.1 Background</td>
<td>5</td>
</tr>
<tr>
<td>2.2 A Taxonomy of Interlock Programs</td>
<td>6</td>
</tr>
<tr>
<td>2.2.1 Program authority</td>
<td>8</td>
</tr>
<tr>
<td>2.2.2 Discretionary or mandatory programs</td>
<td>8</td>
</tr>
<tr>
<td>2.3 Classifying Interlock Programs</td>
<td>9</td>
</tr>
<tr>
<td>2.3.1 Type 1: Judicial-discretionary programs</td>
<td>10</td>
</tr>
<tr>
<td>2.3.2 Type 2: Judicial-mandatory programs</td>
<td>10</td>
</tr>
<tr>
<td>2.3.3 Type 3: Administrative-discretionary programs</td>
<td>10</td>
</tr>
<tr>
<td>2.3.4 Type 4: Administrative-mandatory programs</td>
<td>11</td>
</tr>
<tr>
<td><strong>3.0 Current and Emerging Issues</strong></td>
<td>13</td>
</tr>
<tr>
<td>3.1 Participation Rates</td>
<td>13</td>
</tr>
<tr>
<td>3.2 Perspective and Purpose: Retribution, Rehabilitation or Incapacitation?</td>
<td>14</td>
</tr>
<tr>
<td>3.3 Eligibility/exemptions</td>
<td>15</td>
</tr>
<tr>
<td>3.4 Hard Suspension</td>
<td>17</td>
</tr>
<tr>
<td>3.5 Failure to Reinstate</td>
<td>19</td>
</tr>
<tr>
<td>3.6 Program Duration</td>
<td>20</td>
</tr>
<tr>
<td>3.7 Resistance</td>
<td>21</td>
</tr>
<tr>
<td>3.8 Enforcement</td>
<td>22</td>
</tr>
<tr>
<td>3.9 Program Cost</td>
<td>23</td>
</tr>
<tr>
<td><strong>4.0 Conclusions</strong></td>
<td>25</td>
</tr>
<tr>
<td>4.1 Guidelines</td>
<td>26</td>
</tr>
<tr>
<td>4.2 A Final Word</td>
<td>29</td>
</tr>
<tr>
<td><strong>5.0 References and Bibliography</strong></td>
<td>31</td>
</tr>
<tr>
<td>Appendix A: List of Participants at the Toronto Symposium on Alcohol Interlock Programs</td>
<td>37</td>
</tr>
<tr>
<td>Appendix B: List of Interlock Manufacturers</td>
<td>51</td>
</tr>
</tbody>
</table>
Executive Summary

Background and Purpose

The past decade has seen tremendous growth in alcohol ignition interlock programs. This growth is attributable to the development of a viable and effective interlock device and interlock programs that have been successful in reducing recidivism. Despite the demonstrated success of interlock programs, participation in these programs remains relatively low – typically less than 10% of DWI offenders have an interlock installed.

One means to increase participation in interlock programs is to make it a mandatory condition of licence reinstatement. The purpose of this document is to provide a discussion of the issues concerning the use of the interlock programs as a mandatory condition of licence reinstatement. The presentations and deliberations from an international symposium held in Toronto in November 2001 were used extensively in the preparation of this report.

Key Issues and Recommendations

Implementing interlock programs as a mandatory condition of licence reinstatement faces many challenges. Experience with, and knowledge about, interlock programs can, however, be used effectively to enhance the efficacy of this type of interlock program. Based on the presentations and discussions at the Toronto Interlock Symposium, the following guidelines are recommended for the use of alcohol interlock programs when used as a condition of licence reinstatement.

♦ Perspective. Interlock programs should be viewed primarily as a form of incapacitation, rather than punishment or rehabilitation. As a form of incapacitation, interlock programs are expected to prevent instances of DWI offences while participants are enrolled in the program. This perspective helps manage expectations regarding success and enhances the acceptance of the program.

♦ Eligibility. If participation in an interlock program is to be a condition of licence reinstatement, few, if any, offenders should be excluded. The commission of further DWI offences before entry into the interlock program should not be used as the basis for excluding the individual from the program. Rather, such an event should trigger immediate installation of an interlock, even if the offender remains under suspension and is not legally permitted to drive the vehicle for a period of time.

♦ Hard suspension. Interlock program participation should begin as soon as possible after a DWI conviction. Long periods of hard suspension increase the risk of repeat offences as well as the probability that offenders will not reinstate their licences. In high-risk cases, consideration needs to be given to having the interlock device installed immediately after conviction, even if the offender is not legally entitled to
operate the vehicle for a period of time. This would help ensure that suspended drivers are unable to take advantage of a vehicle being available to drive.

♦ **Incentives.** The purpose of building incentives into the interlock program is to help ensure that all DWI offenders who are supposed to participate do so in a timely manner. By offering a reduction in the length of hard suspension (where applicable), offenders are given the opportunity to drive legally, under the restrictions of the interlock program. This serves the dual purpose of encouraging offenders back into the legal licensing system and helping prevent driving while suspended.

There can also be an incentive for early “completion” of the program. Participants who have demonstrated no positive breath tests, no attempts to circumvent the interlock, and no driving of a non-interlock equipped vehicle for a period of 5 to 6 months present little risk and could be released from the program early.

♦ **Program duration.** Most interlock programs specify a fixed period of time (e.g., six months, one year) for participation. Completion of the program is determined by the passage of time, not a measure of success.

In light of the evidence repeatedly demonstrating that once the device is removed from the vehicle, recidivism rates return to levels comparable to those of DWI offenders who have not participated in the program, it has often been suggested that the duration of interlock program participation should be considerably longer. There is, however, no guarantee that this would prevent an increase in recidivism or merely delay it.

An alternative approach is to have a program of flexible duration. The goal of such a program would be to have participants demonstrate they no longer require the interlock to prevent driving after drinking before being released from the program. The key to this type of program is the close monitoring of participants. Criteria for program completion would be based on data logger records combined with personal and social characteristics and positive rehabilitation reports.

It is also possible to implement a graduated system of re-licencing, whereby interlock participants are systematically weaned from the control of the interlock program through a series of progressively less restrictive phases of the interlock program.

♦ **Program violations.** Interlock program violations include such things as failing to report as required, attempts to circumvent or tamper with the interlock device, and driving a vehicle not equipped with an interlock device. Interlock programs need to have clearly specified sanctions for such violations, in addition to an effective and efficient means for monitoring them.

In some programs, repeated violations result in removal of the offender from the program. This action actually defeats the purpose of the interlock program. High-risk offenders no longer have the device that prevents them from driving after drinking. An appropriate sanction for program violations is impoundment or immobilization of the vehicle. Upon termination of the period of impoundment or immobilization, offenders should continue their participation in the interlock program.
1.0 Introduction

1.1 Background

Over the past two decades, tremendous progress has been made in the development and implementation of alcohol ignition interlock programs. At present, five Canadian jurisdictions and 43 American states have legislation that allows the installation of interlock devices in the vehicles of DWI\(^1\) offenders. However, not all jurisdictions with legislation are currently operating interlock programs, others have relatively small, localized programs.

It is estimated that there are more than 70,000 interlock devices currently in use throughout North America but this represents only a fraction of the estimated 1.5 million DWI offenders in North America each year. Participation rates in most interlock programs are relatively low – typically less than 10% of offenders have an interlock installed. There remains significant potential for the growth of interlock programs. More – and better – interlock programs will undoubtedly serve to increase the number of offenders who participate in these programs. The control of DWI offenders through interlock programs will ultimately improve safety for all road users.

Recent legislative initiatives in both Canada and the United States have given implicit federal approval to interlock programs and have spurred the development and/or expansion of interlock programs. In 1999, the *Criminal Code of Canada* was amended to allow a reduction in the mandatory period of driving prohibition for a first DWI offence from one year to three months provided the offender participates in an alcohol interlock program for the remainder of the one-year period. This legislation was subsequently amended to allow repeat offenders the opportunity to reduce the mandatory driving prohibition by participating in an interlock program.

In the United States, the Transportation Equity Act for the 21st Century (TEA-21) contains a financial incentive for states to strengthen their programs to control repeat

---

\(^1\) In this report, the acronym “DWI” refers to “Driving While Impaired” and includes driving with a blood alcohol concentration (BAC) in excess of the statutory limit and failing or refusing to provide a breath or blood sample for analysis.
DWI offenders. Failure to comply will result in a portion of the state’s highway construction funds being diverted to traffic safety programs. One of the alternatives that will assist states in their efforts to comply involves establishing an alcohol interlock program.

Other countries (e.g., Sweden, Australia) have also initiated interlock programs. In Europe, a consortium of road safety research institutes recently completed a feasibility study regarding the implementation alcohol interlock programs as part of EU drink-driving policies. The report of the working group provided recommendations concerning target groups, technical standards for interlock devices, program requirements, and the design of a field trial (Bax et al. 2001). Several European countries have expressed an interest in conducting a demonstration interlock program and some trials are currently underway.

As alcohol interlock programs have become more prevalent as a means to control the behaviour of DWI offenders, the need for a common set of standards for interlock programs has also become more evident. There are two aspects to the issue of standards for interlock programs. The first concerns technical specifications for the interlock device itself; the other concerns the parameters of the program that determine how the device is used.

Several agencies have developed guidelines, specifications, and/or performance criteria for alcohol ignition interlock devices, including the National Highway Traffic Safety Administration (NHTSA) (Marques and Voas 1993; NHTSA 1992), the province of Alberta (Electronics Test Centre 1992), and the Standards Australia Committee on Blood Alcohol Test Devices (Standards Australia 1993). Although the details of these specifications or guidelines differ somewhat, the overall purpose is to ensure that the interlock devices being used are able to prevent persons with an elevated BAC from operating the vehicle, while at the same time allowing legitimate use of the vehicle by drivers with zero or low BACs. This requires a breath test device that is accurate and reliable but also robust and difficult to circumvent.

Most jurisdictions require that ignition interlock devices used in their programs meet some set of standards. This helps to ensure that the devices are able to perform at a common level of proficiency. The manner in which the devices are used, however, can
vary considerably among jurisdictions. That is, the nature of the parameters that define the interlock program – i.e., target group, extent of monitoring, duration of interlock installation – can be quite different. These program elements may be critical to the overall success of an interlock program.

Although there is little in the way of scientific research to guide the development of standards for interlock programs, an international group of researchers, program specialists, manufacturers, and policy makers have developed guidelines in the form of “best practices” for interlock programs (Beirness 2002). The report on best practices has been acknowledged as an important step in enhancing the effectiveness and efficiency of interlock programs.

However, many other issues remain unresolved. Some of these are empirical issues (e.g., the optimum duration of interlock program participation); others are operational (e.g., responsibility for supervising and monitoring interlock program participants).

Among the current pre-eminent issues is whether interlock programs should be a mandatory condition of licence reinstatement for convicted DWI offenders. To review current practices and discuss related issues, a symposium was held in Toronto on November 2, 2001, bringing together an international group of researchers, interlock manufacturers, policy makers, and program specialists. The deliberations at the symposium were used extensively in the preparation of this report.

1.2 Purpose of the Report

The purpose of this document is to provide a discussion of issues concerning the use of interlock programs as part of a licence reinstatement program. The intent is to identify the potential benefits and limitations of mandatory interlock programs and, where possible, to provide general guidelines for interlock programs being used as a condition of licence reinstatement for DWI offender programs. It is expected that the information contained in this document will be particularly beneficial to those investigating the

---

2 A list of workshop participants is provided in Appendix A.
feasibility of implementing regulations requiring interlock program participation as a condition of licence reinstatement.

1.3 Scope of the Report

The remainder of this report is divided into four major sections.

Section 2.0, Program Options, presents an initial taxonomy of interlock program types.

Section 3.0, Current and Emerging Issues, examines a number of issues that may have relevance for the success of interlock programs.

Section 4.0, Conclusions, outlines a series of guidelines for the use of interlock programs as a condition of a licence reinstatement.

A list of references cited in this report, along with a more comprehensive bibliography on interlock programs, is provided.
2.0 Program Options

2.1 Background

Following years of research, development, and field experience, alcohol interlock programs have come of age. State of the art technology has been employed to create a device that is able to reliably identify individuals who have consumed too much alcohol and prevent them from operating the vehicle in which it is installed. A variety of systems have been incorporated into the device to prevent virtually all attempts at circumvention. Experience with interlock devices over the past decade or so indicates that they perform exceptionally well and do the job for which they were intended – i.e., to prevent those with elevated BACs from operating the vehicle.

Evaluations of interlock programs have repeatedly found reductions in recidivism among interlock participants of up to 90% over that of DWI offenders who were under suspension over the same period of time (e.g., Voas et al. 1999). Once the interlock is removed from the vehicle, recidivism returns to a rate similar to that among DWI offenders who did not participate in an interlock program. Although some would argue that this latter finding suggests that interlock programs have no long-term value, others would point out that such a finding merely demonstrates that interlocks do what they were intended – i.e., to prevent offenders from committing further DWI offences while they are in the interlock program. At present, the role of interlock programs is primarily one of incapacitation – to prevent a reoccurrence of an impaired driving offence – while at the same time allowing the DWI offender the opportunity to drive legally, under supervision, and with insurance.

In light of the demonstrated effectiveness of interlock programs, they should be used extensively. But currently they are in rather limited use. Even where interlock programs exist, participation rates are relatively low in comparison to the number of DWI offenders. In discretionary programs, where offenders volunteer to participate in the program in exchange for a reduction in the length of a hard licence suspension, participation rates are typically less than 10%. Even in programs that have taken extensive steps to
encourage participation, the majority of offenders do not volunteer to participate. For example, the Quebec interlock program has an extensive network of interlock service facilities, promotes the program extensively, and has the threat of vehicle impoundment for driving while suspended (Vezina 2002). Despite those efforts, it has managed to attract only slightly more than 20% of DWI offenders into the program.

In jurisdictions where DWI offenders are assigned to an interlock program by the courts, many judges and magistrates are reluctant to order an offender to participate in an interlock program. This may be the result of various factors such as a lack of adequate and accurate information about interlock programs and their effectiveness among the judiciary (e.g., Robertson and Simpson 2002), or personal considerations introduced by the offender during trial or sentencing (e.g., financial circumstances, lack of vehicle ownership). However, many judges do order offenders to participate in an interlock program but offenders, especially repeat offenders, often ignore such court orders (Robertson and Simpson 2002).

Low participation rates continue to plague interlock programs and limit the overall benefits of such programs. This has led to the suggestion that interlock programs should be made mandatory for all DWI offenders. Although mandatory participation in an interlock program should increase the number of offenders in the program and thereby reduce alcohol-related offences, there is a need to determine what other consequences and issues will arise and how they can be addressed. Such is the purpose of this report.

### 2.2. A Taxonomy of Interlock Programs

Not all interlock programs are created equal. They vary considerably in terms of such factors as duration, eligibility, requirement for reporting and monitoring. In an attempt to create a taxonomy of interlock programs, two key dimensions were selected for a classification scheme. The first dimension concerns the program authority – i.e., the body or agency that is ultimately responsible for offenders in the program, including determining their eligibility, monitoring and supervising them, sanctioning for non-compliance, and determining program completion. The program authority generally
resides with either the courts or the administrative authority responsible for driver licensing (the Department of Motor Vehicles – DMV – or its equivalent).

The other dimension concerns the extent to which participation in the interlock program is discretionary. For example, participation in some interlock programs is voluntary, being left completely to the discretion of the offender. In some cases participation is at the discretion of the judge. In other programs, participation is mandatory, being required by law.

Figure 1 presents an illustration of how these two dimensions form a simple matrix for classifying most existing interlock programs. The purpose of the matrix is to help illustrate the similarities and differences among the administrative and operational aspects of various interlock programs. It is not intended to be descriptive of every program. Nor is it necessarily the case that a program will fit exclusively into only one cell of the matrix.

Figure 1: A Simple Taxonomy of Interlock Programs

```
\begin{tabular}{|c|c|}
\hline
\textit{Discretionary} & \textit{Mandatory} \\
\hline
\textit{Judicial} & \\
1 & 2 \\
\hline
\textit{Administrative} & \\
3 & 4 \\
\hline
\end{tabular}
```

2.2.1 Program authority

As noted previously, the program authority is the body or agency responsible for offenders in the interlock program. This responsibility includes determining which offenders are eligible to participate in the program, monitoring participants, imposing
sanctions for non-compliance or program violations, and determining program completion. In most cases, the program authority rests either with the courts (i.e. judicial authority) or with the driver licensing agency (i.e., administrative authority).

In many jurisdictions, legislation governing interlock programs places the authority for the program in the hands of judges and the courts. Judges can order an offender to participate in an interlock program. In some cases, such orders are a condition of probation, which can require the department of probation to monitor and supervise offenders. The primary liabilities of placing the authority for the program in the hands of the courts is the discretion exercised by judges in ordering offenders to participate in an interlock program and the number of offenders who fail to comply with the judicial order. Even when legislation requires interlock participation, judges do not necessarily order offenders to participate. The advantage of judicial authority is that the courts have the power to impose alternative or additional sanctions for non-compliance or misconduct.

### 2.2.2 Discretionary or mandatory programs

The second dimension used to classify interlock programs concerns the extent to which participation is considered to be discretionary or mandatory. An interlock program is considered discretionary if offenders decide whether or not to participate. In many cases, such voluntary programs are structured to encourage participation – e.g., offenders are offered an incentive, such as a reduction in the length of their licence suspension, to volunteer for the program. An interlock program may also be considered discretionary if judges have the opportunity to determine whether or not a DWI offender participates in the program.

Participation in an interlock program may also be required – e.g., as an administrative condition of licence reinstatement or as a mandatory condition of probation for all offenders.

Although the distinction between discretionary and mandatory is convenient for categorizing and conceptualizing programs, it obscures some important complexities. For example, the incentive for voluntary participation can be a trade-off between the inconvenience and expense of an interlock program versus a longer period of
suspension. The “incentive” might also involve a choice between the interlock program and some other highly undesirable alternative such as house arrest (e.g., Voas et al. 2001). Mandatory participation can take the form of a statutory requirement for certain DWI offenders to participate in an interlock program or a judicial order to participate. In both cases, although required to participate, the individual may be able to avoid doing so simply by failing to comply with the order or choosing not to become re-licensed.

Accordingly, in practice, “discretion” is more of a continuum than a dichotomy – programs are probably best described in terms of the degree to which offenders are “encouraged” to participate. For simplicity, however, interlock programs are referred to in this report as either discretionary or mandatory, based on the extent to which participation involves a choice on the part of a judge or the offender.

### 2.3 Classifying Interlock Programs

Using the matrix presented in Figure 1, interlock programs can generally be classified as one of four types: judicial-discretionary, judicial-mandatory, administrative-discretionary, or administrative-mandatory. They are described briefly below.

#### 2.3.1 Type 1: Judicial-discretionary programs

In this type of program, an offender can be ordered by the judge to have an interlock installed on their vehicle as part of their sentence. The judge is not obliged to include the interlock as part of the sentence but has the discretion to do so. As noted previously, most judicial-discretionary programs result in low participation rates primarily because judges do not order offenders to have them installed.

One rather unique version of this type of program places the burden of choice on the offender. As described by Voas et al. (2001), in an effort to increase participation in the interlock program, a judge in Hancock County gave DWI offenders the choice between house arrest and the interlock program. Perhaps not surprisingly, over 60% chose to participate in the interlock program.
2.3.2 Type 2: Judicial-mandatory programs

In part to overcome the problems associated with judicial discretion, the provisions in some legislation (e.g., California) require the installation of an interlock, usually for certain types of offenders (e.g., multiple offenders). In theory, this eliminates judicial discretion because participation in the interlock program is mandatory for the convicted offender. In practice, however, even this requirement does not necessarily eliminate judicial discretion, as shown by Helander (2000). Moreover, the problems associated with monitoring offenders (see Robertson and Simpson 2002) result in many who have been mandated by the courts to have an interlock installed, simply ignoring the court order. As a consequence, even in judicial-mandated programs, participation rates can be very low.

2.3.3 Type 3: Administrative-discretionary programs

The primary difference between these programs and judicial-discretionary programs is that authority over the interlock resides with the licensing authority. As well, the locus of discretion usually resides with the offender more than with the licensing authority. The licensing authority makes the program available but participation is usually voluntary. Recognizing that this will yield very low participation rates, most of these programs have introduced an incentive for offenders to participate, usually in the form of a reduction in the length of licence suspension. The fact that participation rates in these types of programs are also very low (about 10%) suggests that the incentive is not particularly effective – most offenders apparently do not feel inconvenienced by the lack of a licence (likely because most drive anyway).

Programs of this sort predominate among the interlock programs in Canada.

2.3.4 Type 4: Administrative-mandatory programs

In this type of program interlock program, participation is required as a condition of licence reinstatement. In essence, the interlock program becomes a period of conditional licensing, bridging the period between full suspension and full reinstatement.
In light of the demonstrated success of interlock programs, mandatory programs of this type are beginning to emerge. Such programs help to ensure that a large proportion of all convicted DWI offenders participate in an interlock program. This allows offenders to resume driving legally and under supervision, while at the same time the program offers increased protection and security to the general public by preventing offenders from engaging in further drinking-driving behaviour. The simplicity and comprehensiveness of this model makes it an attractive option, and for these reasons, the Symposium participants focussed on this type of program. Accordingly, the remainder of this report examines issues related to administrative-mandatory interlock programs.
3.0 Current and Emerging Issues

Over the past 15 years, a wealth of knowledge and experience has accumulated on the use of alcohol interlock programs as an effective countermeasure for impaired driving. As interlock programs expand and mature and as research progresses, greater understanding is being achieved of the factors that enhance the effectiveness of programs. One of these factors is the way the program is designed. Consensus emerged at the Symposium that administrative-mandatory programs – those that require interlock program participation as a condition of licence reinstatement – hold considerable potential for success. This model was the focus of discussion at the Symposium.

Many of the issues concerning administrative mandatory interlock programs are relevant to interlock programs in general but the characteristics of the issues vary somewhat. This section examines the current and emerging interlock issues with special reference to their impact on administrative-mandatory programs.

3.1 Participation Rates

Low participation rates have plagued virtually all interlock programs. Typically, less than 10% of DWI offenders volunteer to participate in an interlock program. In judicial programs, magistrates are often reluctant to order an offender to participate in an interlock program, even when legislation requires it. Whatever the reasons, low participation rates limit the overall effectiveness of interlock programs and restrict the potential of such programs to have an impact on the impaired driving problem.

Requiring convicted DWI offenders to participate in an interlock program as a condition of licence reinstatement was discussed by symposium participants as potentially effective strategy to increase the proportion of offenders who participate in, and benefit from, interlock programs.
Placing control of the program in the hands of the driver licensing authorities (i.e., DMV) avoids the potential for DWI offenders to convince the judge to exercise discretion and exempt them from the program. At the completion of the required period of suspension, DWI offenders would be restricted to driving only an interlock-equipment vehicle. This restriction would be clearly noted on the driver’s licence.

3.2 Perspective and Purpose: Retribution, Rehabilitation or Incapacitation?

There has been considerable misunderstanding about the primary objective of interlock programs and this has led to differing perspectives on their value. Some view the interlock as a form of punishment, others have hoped it would rehabilitate offenders, and others have viewed it simply as a means to prevent driving after drinking. Managing the expectations of policy-makers requires, in part, an appreciation of the primary purpose of the interlock program.

Because the principal target group of interlock programs has been – and will most likely continue to be – convicted DWI offenders, interlock programs are often viewed as yet another form of punishment. Undoubtedly, participants experience some degree of inconvenience and expense and many will perceive the interlock program as punitive. However, interlock programs are not simply another sanction imposed upon DWI offenders as an additional punishment. Indeed, the demonstrated value of interlock programs likely arises more from the incapacitation they impose than from their punitive impact. The interlock device places a physical barrier between the impaired driver and the operation of the vehicle, thereby preventing a repeat occurrence of the offence. Evaluation studies over the past 15 years have demonstrated that interlock programs are extremely effective in this regard.

In the early days of interlock programs, there were also expectations that it would permanently change the behaviour of participants. Once the pattern not driving after drinking was established, it was hoped this would persist. Although this might recur with some participants, evidence of a general learning or long-term rehabilitative effect has not been forthcoming. Rather, it is evident that once the device is removed from the vehicle, offenders begin driving after drinking once again, showing that the interlock
program has minimal rehabilitative impact. It has been argued, however, that the period of interlock program participation presents an ideal opportunity to engage – or continue – the offender in an appropriate rehabilitation program and this possibility has been the subject of a major investigation (Marques et al. 2000).

This is not to suggest that interlock programs do not have either punitive or rehabilitative effects. Punitive effects likely arise from the financial costs, inconvenience, and embarrassment associated with using the device. Some offenders may also derive a rehabilitative benefit from participation in the interlock program. Repeated use of the interlock device may assist offenders to understand how much – or how little – alcohol is required before driving becomes ill-advised and/or illegal. Others may begin to appreciate the frequency and extent of their own drinking behaviour and move closer to taking personal action towards recovery. Interlock programs may, for some individuals, facilitate the rehabilitative process.

However, interlock programs are best perceived as a form of incapacitation, the purpose of which is to prevent the drinker from operating the vehicle. This they do exceptionally well.

### 3.3 Eligibility/exemptions

The issue of eligibility for interlock programs may appear irrelevant in the context of a mandatory program but it is not. Jurisdictions do not normally include all DWI offenders in the program and have to decide who must participate – e.g., those involved in serious crashes, those involved in drug-related driving incidents. In some jurisdictions, offenders who do not own a vehicle (i.e., have a vehicle registered in their name) may be exempt from participating in the interlock program. Still others may be deemed exempt from the interlock restriction when operating an employer-owned vehicle for work purposes. Whatever the reasons, legislators often choose to exempt certain offenders from mandatory programs but they need to consider the consequences of such exemptions or exclusions.

From data presented in evaluation studies of interlock programs, it is apparent that many DWI offenders who are suspended and not participating in the interlock program
continue to drive and to do so under the influence of alcohol. In the evaluation of the Alberta interlock program, Voas et al. (2000) examined the records of a group of DWI offenders who were deemed ineligible for the interlock program by virtue of their having committed a subsequent DWI offence while serving the mandatory period of hard suspension for a previous offence. From the time they would have been eligible for the interlock program, these offenders committed further DWI offences at a higher rate than other suspended DWI offenders who were eligible but did not participate in the interlock program. Thus, the group deemed ineligible to participate in the program would actually appear to be a particularly high-risk group in greatest need of, and would benefit most from, participation in an interlock program. Ensuring that these high-risk individuals participate in the interlock program would prevent a considerable number of repeat DWI offences. Accordingly, if exemptions are to be included in a program, the consequences of such exclusions need to be considered carefully.

Some exemptions arise because jurisdictions are restricted in their ability to order offenders to install an interlock on a vehicle not registered in their name. This may allow DWI offenders to escape participation in the interlock program by transferring ownership/title of the vehicle to a spouse, friend, or other relative. As part of a licence reinstatement program, licensing agencies may be able to encourage offenders to have the interlock device installed in the vehicle they usually drive and participate in the interlock program by issuing a licence restricting them to an interlock-equipped vehicle as soon as they are eligible. The restriction would have to be clearly indicated on the face of the licence and the sanctions for a violation of this restriction would have to be severe (e.g., impoundment) and explicit.
3.4 Hard Suspension

One of the most widely accepted sanctions for dealing with DWI offenders is the removal of driving privileges, usually through the suspension or revocation of the driver’s licence. Licence suspension has been shown to be an effective DWI countermeasure (Blomberg et al. 1987; Ross and Gonzales 1988; Voas and Tippetts 1993). In general, studies demonstrate that DWI offenders who serve a period of licence suspension have lower recidivism rates than those who serve no suspension, or have restricted driving privileges.

Despite the beneficial effects of licence suspension, it is still not known what length of licence suspension is most effective. Nevertheless, in a continual effort to “crack down” or “get tough” with DWI offenders, jurisdictions have repeatedly increased the length of licence suspensions. Moreover, to ensure that this effective sanction is not circumvented by such things as diversion, many jurisdictions require that a certain, fixed period of suspension must be served. These so-called “hard suspensions” have become increasingly popular, at least in North America.

This has, however, created a conflict with interlock programs. Part of this conflict is looked in the fundamentally different operations of the two programs – one is designed to prohibit driving; the other is designed to permit driving. It is obvious that an offender cannot be eligible for an interlock program while their licence is suspended. Contemporary thinking is that rather than the two programs being in conflict, they can be very effective, complementary initiatives, where the interlock program serves as a bridge between full suspension and full reinstatement. The offender, in effect, would progress from a suspension where no driving is permitted, to an opportunity to drive but only if sober, to reinstatement of full driving privileges.

Moreover, contemporary thinking is that the interlock program can be used as an “incentive” or motivator whereby eligible offenders can reduce the period of their licence suspension by entering an interlock program. Part of the rationale behind this suggestion is the incomplete incapacitation afforded by licence suspension in the first place. Suspended drivers are still able to operate a vehicle – and to operate a vehicle after drinking. In fact, it has been determined that up to 75% of convicted DWI offenders
continue to drive, at least occasionally, during periods of suspension (Hagen et al. 1980; Malenfant et al. 2002; Nichols and Ross 1990). Exacerbating the problem is the fact that the longer the suspension, the greater the opportunity for the suspended driver to drive and to drive after drinking.

It is evident that a balance needs to be struck so that the period of licence suspension is adequate to maximize its specific and general deterrent effects but not so long that it discourages offenders from the desire to become relicensed and therefore eligible for the interlock program.

One solution is to disentangle the two programs and this has been done in Sweden where hard licence suspension is not necessarily an integral part of DWI sanctions. The interlock program is available as an alternative to full suspension; convicted DWI offenders can apply to participate in the two-year program as soon as possible and can effectively by-pass the suspension. Participants must, however, submit to periodic medical assessment – including blood tests for biological markers of alcohol abuse – and provide evidence of a sober lifestyle.

This alternative is not likely to be seen in North America in the near future because of the long history of hard licence suspension as a sanction for DWI offenders. Eliminating the period of hard suspension may be difficult. But keeping the length of hard suspension to a minimum to ensure rapid entry into the interlock program may enhance the overall effectiveness of DWI sanctions and programs.

Even within the context of a mandatory program, there may also be beneficial effects associated with allowing DWI offenders the opportunity to reduce the length of hard suspension by participating in an interlock program. Using a reduction in hard suspension time as an incentive should facilitate early participation and reduce the opportunity for driving while suspended. Using an incentive can also help create the perception that the interlock program is a positive and beneficial experience rather than yet another form of punishment.

3.5. Failure to Reinstate
An issue closely related to hard licence suspension is that of failure to reinstate. Once offenders have been suspended for some time, they may become accustomed to not driving at all, or may have learned that driving while suspended is relatively easy, convenient, and carries very low risk of detection. The value of having a valid driver’s licence is, therefore, diminished substantially. Moreover, the complex process of reinstatement – applications to complete, fees to pay, driving tests to take, and programs to attend – further serve to diminish the motivation for suspended drivers to reinstate their licence.

If offenders elect not to drive, failing to reinstate presents no problems. However, if offenders continue to drive while under suspension, they are doing so in defiance of the law, without insurance, and in the absence of any type of remediation or rehabilitation. Their behaviour is unlikely to have changed and they present a significant risk to themselves and other road users.

The number of DWI offenders who fail to reinstate is substantial. For example, in California, only 16.4% of repeat DWI offenders applied for reinstatement of their driver’s licence within three years of having become eligible (Tashima and Helander 1999) – i.e., nearly 84% of those who were suspended never applied to have their licence reinstated. Many of these offenders continue to drive – and drive after drinking. At issue seems to be the length of the suspension. If it is too protracted, the perceived benefits of reinstatement become eroded by the benefits of driving unlicensed.

Indeed, the length of hard licence suspension is likely inversely related to the probability of reinstatement. The longer the period of hard licence suspension, the less likely drivers will reinstate. However, simply reducing the length of the hard suspension would likely be viewed as an obvious attempt to reduce the sanctions for a DWI offence and would widely be perceived as a softening of the hard-line approach to DWI offenders.

Even replacing part of the hard suspension with a period of mandatory participation in an interlock program might represent to some a reduction in the severity of the sanctions. But as stated previously, licence suspension serves two purposes – punishment and incapacitation. It is not known what constitutes “sufficient” or “adequate” punishment. It is clear, however, that suspension is an inadequate form of incapacitation. Alcohol
ignition interlocks have proven to be a more effective means of incapacitation than suspension. A compromise position would be to limit the hard licence suspension to a specified minimum period of time and then require offenders to participate in an interlock program for a period of time that would be equal at least to the remainder of the suspension. This would achieve the goals of punishment and incapacitation, reducing the likelihood of driving while suspended and driving while under the influence of alcohol.

Although this approach has obvious appeal, it begs the question regarding the optimal length of hard suspension – i.e., what is the period of time that both minimizes recidivism and maximizes reinstatement rates. Some have argued that legislation has already determined what is appropriate. Others argue it is an empirical question, the answer to which is not available. Still others question the need for a period of hard suspension altogether. For high-risk offenders, in particular, it may be more beneficial simply to require that they enter the interlock program immediately upon conviction without any period of hard suspension. As noted earlier, this approach is currently being used in the interlock program in Sweden.

### 3.6 Program Duration

Evaluations of interlock programs have repeatedly demonstrated that in the period following completion of the program when the interlock device is removed from the vehicle, the recidivism rate returns to a level that matches that of offenders who did not participate in the program. This consistent finding has, as noted earlier, underscored the fact that the interlock device alone does not permanently change the drinking-driving behaviour pattern of offenders – rather, it interrupts it. Although this has been disappointing to some, in reality it is unrealistic to expect that the device alone will alter rather deeply rooted behaviours, especially alcohol dependency. Accordingly, new ways are being explored to link the interlock to treatment and rehabilitation.

Another way to ensure that the effectiveness of the interlock is sustained is simply to extend the period of time offenders participate in the program – possibly forever. As appealing as a lifetime interlock program may be, it is not reasonable to expect all DWI
offenders to participate in the interlock program for the rest of their lives. Although there may be cases in which this option is warranted, for most others it is not.

The challenge then is to determine the optimal duration of the interlock program. Marques and colleagues (2001) have suggested that interlock program duration should not be fixed but rather determined on an individual basis. Using data from the interlock recorder as well as other social and demographic indicators, Marques et al. were able to predict the likelihood of DWI recidivism following the completion of the interlock program. Such information, possibly combined with other biological markers of alcohol abuse, could be used to determine which offenders should continue to participate in the interlock program and which offenders could be released from it. In essence, rather than having an interlock program of pre-determined length, the duration of the program would be variable, contingent upon participants demonstrating that they no longer require the interlock to control their drinking-driving behaviour.

### 3.7 Resistance

One of the issues that mandatory programs face is resistance from the participants. In programs where participants enter voluntarily, they are motivated to do so for a variety of personal reasons and, most importantly, are more likely to comply with the demands of the program.

By contrast, DWI offenders who are required to participate in the interlock program as a condition of licence reinstatement are much more likely to exhibit some form of resistance, manifested as resentment, denial, fear, suspicion, anger, aggression and /or non-compliance. The situation can be exacerbated by the fact that many DWI offenders are, at the same time, having to confront their own excessive drinking behaviour. Among DWI offenders, many of whom have never yet faced serious consequences from their drinking, denial is a common response that can lead to anger and non-compliance with the interlock program.

Those who deal directly with persons required to participate in the interlock program may bear the brunt of clients’ anger and resentment. And, service providers and program monitors may be ill-prepared to deal with resistance from clients who have been
mandated to participate in the program. Accordingly, front-line workers in interlock programs need to be prepared for and understand that resistance is a natural reaction and should be expected as part of the overall rehabilitation process. Although it may not generally be viewed as part of their job description, those who deal directly with non-voluntary interlock participants may benefit from learning skills to deal effectively with the anger, suspicion and resentment they may face on a daily basis.

This is not to suggest that those working with interlock programs need to become trained counsellors. Rather, learning to recognize manifestations of resistance as well as simple techniques to re-direct the emotions or disarm the situation could be an effective way to enhance program compliance. Knowing when and where to suggest a referral to a rehabilitation program would also be a beneficial skill. In this context, having a list of available counselling services and alcohol rehabilitation programs would be a valuable resource for all who work directly with interlock clients.

### 3.8 Enforcement

A mandatory program of any type is inevitably faced with the issue of enforcing compliance. Requiring participation in an interlock program involves enforcement at two levels: one to ensure offenders enter the program as required; the other to ensure program participants drive only an interlock-equipped vehicle.

Some offenders may not enroll in the program because they elect to discontinue driving. Provided they follow this course of action, they do not pose a traffic safety threat and enforcing compliance with the program is not an issue. The problem lies with those who choose not to participate in the interlock program even though it has been mandated, but continue to drive without a valid licence. Low levels of enforcement and a low perceived risk of being detected for driving while suspended contribute to this problem. Greater enforcement through police checkpoints, both for alcohol and drivers’ licences, would help reduce the incidence of offenders who choose to ignore the interlock requirement.

As noted earlier, administrative interlock programs attempt to minimize the need for monitoring compliance with the program by offering incentives for participation. The assumption is that DWI offenders have a desire to drive legally and will actively pursue
enrolment in the interlock program as a means to re-enter the legal driving population. Beyond informing offenders when they are eligible for the interlock program and providing them with the relevant details of participation (and the consequences of not participating), driver licensing agencies may have little interest in pursuing those who do not enrol in the program within a reasonable period of time.

The other enforcement issue concerns participants who drive a vehicle other than the one that is interlock equipped. This is more a problem in theory than practice since there is very little evidence that such circumvention is common. Even those with access to another vehicle appear to restrict their driving to the vehicle with the interlock device (Voas et al. 2000). Enforcing compliance with the interlock program requires that the restriction be clearly noted on the driver’s licence and police officers are able to recognize a functional interlock device. Although enforcing compliance with the interlock restriction has not been a major problem to date, it may become more of an issue as jurisdictions move towards requiring interlock program participation as a mandatory condition of licence reinstatement.

**3.9 Program Cost**

The cost of participating in the interlock program is often cited as a factor contributing to the relatively low participation rates. With mandatory programs, the issue of cost becomes particularly salient. However, the actual cost of the interlock program is not excessive. Most people who have a vehicle and can afford to drink are able to re-allocate their resources to pay the monthly interlock program fee. But the program is only one part of the financial burden for DWI offenders. Fines, rehabilitation program fees, licence reinstatement fees, and insurance surcharges are often also required. These costs can be considerably more than the interlock program fees.

In order to facilitate participation in interlock programs, some judges reduce or waive fines; some rehabilitation programs have a sliding scale fee based on the ability to pay. There are also a small number of insurance companies that recognize the value of interlock programs in preventing recidivism and reduce or waive the usual surcharge for a DWI conviction for those who participate in an interlock program. More widespread use of these financial incentives would facilitate participation.
It is critical that financial considerations not exclude offenders with limited resources from participating in an interlock program. Universal access to interlock programs may require governments, service providers, and insurance companies to cooperate in the creation of a system to subsidize the cost of the interlock program for those who can demonstrate financial hardship. As jurisdictions move towards mandatory programs, it will become increasingly important to confront the financial issue to ensure all offenders have the opportunity and means to participate.
4.0 Conclusions

Over the past several years, in response to the proven safety benefits of interlock programs, but frustrated by the low participation rates in such programs, an increasing number of jurisdictions have been considering the interlock program as a mandatory condition of licence reinstatement following a DWI conviction. The purpose of the Toronto Interlock Symposium and this report was to discuss the current and emerging issues surrounding the use of interlock programs as a requirement of licence reinstatement.

If interlock program participation is a condition of licence reinstatement, and if this in turn increases the number of DWI offenders who participate, theoretically there should be greater safety benefits. However, it is important to recognize that this approach has implications for the way programs operate and creates new issues that need to be resolved.

For example, if all DWI offenders are required to participate in an interlock program, it will increase the diversity of participants. Some will benefit from a relatively short period of interlock program participation whereas others may require more extended participation to reduce the likelihood of recidivism. Interlock programs must be sufficiently flexible to accommodate these various needs. This will require that programs utilize the information available about participants and their performance while in the program to adjust the parameters of the program to better serve individuals and protect society. As a further illustration of new issues, mandatory programs give rise to unwilling participants, who may be uncooperative with program staff and more likely to be non-compliant with program requirements – i.e., failing to comply with the requirement to participate in the program or deliberately taking action to avoid using the interlock-equipped vehicle. In both cases, greater emphasis will need to be placed on enforcement.

In summary, implementing interlock programs as a mandatory condition of licence reinstatement faces many challenges. Experience with, and knowledge about, interlock
programs can, however, be used effectively to enhance the efficacy of this type of interlock program. Based on the presentations and discussions at the Toronto Interlock Symposium, the following guidelines are recommended for the use of alcohol interlock programs when used as a condition of licence reinstatement.

4.1 Guidelines

♦ Perspective. The issue of perspective applies to all interlock programs, but is so critical that it warrants emphasis here as well. Interlock programs should be viewed primarily as a form of incapacitation, rather than punishment or rehabilitation. As a form of incapacitation, interlock programs are expected to prevent instances of DWI offences while participants are enrolled in the program. This perspective helps manage expectations regarding success and enhances the acceptance of the program.

♦ Eligibility. If participation in an interlock program is to be a condition of licence reinstatement, few, if any, offenders should be excluded. The commission of further DWI offences before entry into the interlock program should not be used as the basis for excluding the individual from the program. Rather, such an event should trigger immediate installation of an interlock, even if the offender remains under suspension and is not legally permitted to drive the vehicle for a period of time.

♦ Hard suspension. Interlock program participation should begin as soon as possible after a DWI conviction. Long periods of hard suspension increase the risk of repeat offences as well as the probability that offenders will not reinstate their licences. In high-risk cases, consideration needs to be given to having the interlock device installed immediately after conviction, even if the offender is not legally entitled to operate the vehicle for several months. This would help ensure that suspended drivers are unable to take advantage of a vehicle being available to drive.

♦ Incentives. The purpose of building incentives into the interlock program is to help ensure that all DWI offenders who are supposed to participate do so in a timely manner. By offering a reduction in the length of hard suspension (where applicable), offenders are given the opportunity to drive legally, under the restrictions of the interlock
program. This serves the dual purpose of encouraging offenders back into the legal licensing system and helping prevent driving while suspended.

There can also be an incentive for early “completion” of the program (see “program duration” below). Participants who have demonstrated no positive breath tests, no attempts to circumvent the interlock, and no driving of a non-interlock equipped vehicle for a period of 5 to 6 months present little risk and could be released from the program early.

♦ Program duration. Most interlock programs specify a fixed period of time (e.g., six months, one year) for participation. Completion of the program is determined by the passage of time, not a measure of success.

In light of the evidence repeatedly demonstrating that once the device is removed from the vehicle, recidivism rates return to levels comparable to those of DWI offenders who have not participated in the program, it has often been suggested that the duration of interlock program participation should be considerably longer. There is, however, no guarantee that this would prevent an increase in recidivism or merely delay it.

An alternative approach is to have a program of flexible duration. The goal of such a program would be to have participants demonstrate they no longer require the interlock to prevent driving after drinking before being released from the program. The key to this type of program is the close monitoring of participants. Criteria for program completion would be based on data logger records combined with personal and social characteristics and positive rehabilitation reports.

It is also possible to implement a graduated system of re-licencing, whereby interlock participants are systematically weaned from the control of the interlock program through a series of progressively less restrictive phases of the interlock program. These steps or phases might involve: reducing the number and frequency of running re-tests; requiring breath tests only at high-risk times of day (i.e., nighttime) and/or days of the week (i.e., weekends); or requiring breath tests on a random schedule. Successful completion of these progressively less restrictive phases would lead to program termination and full licence reinstatement.
Program violations. Interlock program violations include such things as failing to report as required, attempts to circumvent or tamper with the interlock device, and driving a vehicle not equipped with an interlock device. Interlock programs need to have clearly specified sanctions for such violations, in addition to an effective and efficient means for monitoring them.

Failed breath tests, per se, should not be considered a program violation. Indeed, every failed breath test confirms the value of the interlock program in that it represents the successful prevention of an impaired driving trip. Repeated failed breath tests are predictive of impaired driving behaviour following completion of the interlock program and should be taken into consideration when determining the duration of participation in the interlock program.

In some programs, repeated violations result in removal of the offender from the program. This action actually defeats the purpose of the interlock program. High-risk offenders no longer have the device that prevents them from driving after drinking. An appropriate sanction for program violations is impoundment or immobilization of the vehicle. Upon termination of the period of impoundment or immobilization the offender should continue their participation in the interlock program.

One of the keys to enforcement of program conditions or requirements is the efficient and effective communication between service providers, program monitors, and the administrative authority. Violations need to be noted and acted upon in a timely manner.

Driving a vehicle not equipped with an interlock device is difficult to detect and enforce. Deterrence of this behaviour requires program participants to know that there is a reasonable likelihood of being detected. This can be accomplished through regular police spot check programs combined with increased awareness of the probability of detection. It is unlikely that spot check programs would be established specifically to deter/detect interlock program violation. Rather, this would have to be incorporated into ongoing licence and alcohol spot check programs. Even then, this would require a considerable degree of cooperation among interlock service providers, program monitors, the program administrative authority, and the police.
In this context, a key to effective enforcement is a clear stipulation on the driver’s licence that the holder is restricted to an interlock equipped vehicle.

4.2 A Final Word

Requiring interlock program participation as a condition of licence reinstatement following a DWI conviction is the next major challenge for the enhancement of interlock programs. Expanding the number of DWI offenders exposed to interlock programs has the potential to make a significant impact on DWI recidivism and, ultimately, on the number of deaths and injuries related to this behaviour. The purpose of this report was to consider some of the anticipated challenges faced by mandatory interlock programs. These challenges were identified by the experts who participated in the Toronto Interlock Symposium. Their experiences and insights into the issues and problems and how to solve them will hopefully enhance the performance of interlock programs.
5.0 References and Bibliography


Road Traffic Authority (1987b) Second Submission to the Inquiry into the Management of Drivers Apprehended with High Blood Alcohol Levels Regarding the Use of In-vehicle Interlocks (The Social Development Committee of the Victoria Parliament). Hawthorne, Victoria: Road Traffic Authority of Victoria.


Appendix A

List of Participants at the Toronto Symposium on Alcohol Interlock Programs
Ignition Interlock Symposium

Toronto, Canada – November 2\textsuperscript{nd}, 2001

List of Participants

\textbf{Bengt Allo}
Title: Managing Director
Representing: Alkolås I Skandinavien AB
Address: Lärjungevägen 6
S-136 69 Haninge
Sweden
Telephone: +46 8 776 1805
Facsimile: +46 8 776 1890
Email: mailbox@alkolas.se
Website: www.alkolas.se

\textbf{Michael R. Balgord}
Title: President
Representing: National Interlock Systems, Inc
Address: 1660 Jasper St, Suite I
Aurora, CO  80011
Telephone: +1 888 769 6080
Facsimile: +1 888 262 6044
Email: mrbalgord@nationalinterlock.com
Website: www.nationalinterlock.com

\textbf{Lamar Ball}
Title: CEO
Representing: Smart Start Inc.
Address: 4850 Plaza Dr.
Irving, TX  75063
Telephone: +1 972 621 0252, ext. 265
Facsimile: +1 972 915 0562
Email: lball@smartstartinc.com
Website: www.smartstartinc.com

\textbf{Elizabeth Ballantyne}
Title: Director of Marketing
Representing: T-Comm Global Networks
Address: Box G48
 Bowen Island, BC  V0N 1G0
Telephone: +1 604 947 0817
Facsimile: +1 604 947 0816
Email: elizabeth@ballantyne.com
Jim Ballard
Title: President
Representing: Smart Start, Inc.
Address: 4850 Plaza Drive
Irving, TX  75063
Telephone: +1 972 621 0252
Facsimile: +1 972 929 6638
Email: jballard@smartstartinc.com
Website: www.smartstartinc.com

Doug Beirness
Title: Vice President, Research
Representing: Traffic Injury Research Foundation
Address: 171 Nepean St., Suite 200
Ottawa, ON  K2P 0B4
Telephone: +1 877 238 5235
Facsimile: +1 613 238 5292
Email: dougb@trafficinjuryresearch.com
Website: www.trafficinjuryresearch.com

Francisco Bermúdez
Title: Consejero Delegado
Representing: Grupo Tecnología del Tráfico
Address: Calle Juan Ramón Jiménez, 2
28036 Madrid, Spain
Telephone: +34 91 457 9187
Facsimile: +34 91 457 7399
Email: fran@grupotrafico.es
Website: www.grupotrafico.es

John Brewer
Title: General Manager, Road Safety Strategy
Representing: Roads & Traffic Authority
Address: 260 Elizabeth Street
Sunny Hills, NSW   2010, Australia
Telephone: +61 2 9218 3564
Facsimile: +61 2 9218 6869
Email: John_Brewer@rta.nsw.gov.au

Christiane Brosseau
Title: Program Manager
Representing: GIS Québec Ltée
Address: 5940 Papineau, 2nd Floor
Montreal, QC H2G 2W8
Telephone: +1 514 273 1098
Facsimile: +1 514 273 0122
Email: cbrosseau@guardianinterlock.ca
William J. Burger
Title: Director, Product Development
Representing: Alcohol Countermeasure Systems Corp.
Address: 14 - 975 Midway Boulevard
        Mississauga, ON  L5T 2C6
Telephone: +1 905 670 2288
Facsimile: +1 905 670 8211
Email: wjburger@acs-corp.com
Website: www.acs-corp.com

Frédéric Brunet
Title: Ingénieur
Representing: Société de l’assurance automobile du Québec (SAAQ)
Address: CP 19600, 333, boul, Jean-Lesage C-4-2
        Quebec, QC  G1K 8J6
Telephone: +1 418 528 4523
Facsimile: +1 418 643 0828
Email: frederic.brunet@saaq.gouv.qc.ca

Patricia Charles
Title: Program Coordinator
Representing: GIS Québec Ltée
Address: 5940 Papineau, 2nd Floor
        Montreal, QC H2G 2W8
Telephone: +1 514 273 2451
Facsimile: +1 514 273 0122
Email: pacharles@guardianinterlock.com

Ronald Chartrand
Title: President
Representing: Alcotest Québec, Inc
Address: 2135A boul. des Laurentides
        Laval, QC H7M 4M2
Telephone: +1 450 666 2500
Facsimile: +1 450 666 2501
Email: alcotestquebec@videotron.ca

Gilles Chiasson
Title: Coordinator, Driver Behaviour/Deputy Registrar
Representing: Road Safety Programs, Service
Nova Scotia and Municipal Relations
Address: Maritime Centre, 9 North 1505 Barrington Street
        Halifax, NS  B3J 3K5
Telephone: +1 902 424 5034
Facsimile: + 902 424 0772
Email: chiassg@gov.ns.ca
Heather Clarke
Title: Manager, Service Development & Implementation
Representing: Ontario Ministry of Transportation
Address: 1201 Wilson Ave., Room 318, Bldg., C
Downsview, ON M3M 1J8
Telephone: +1 416 235 3635
Facsimile: +1 416 235 4309
Email: heather.clarke@mto.gov.on.ca

Felix J.E. Comeau
Title: President
Representing: Alcohol Countermeasure Systems Corp.
Address: 14 - 975 Midway Boulevard.
Mississauga, ON L5T 2C6
Telephone: +1 905 670 2288
Facsimile: +1 905 670 8211
Email: mailbox@acs-corp.com
Website: www.acs-corp.com

Michel Daigle
Title: Registrar of Motor Vehicles
Representing: Department of Public Safety
Address: P.O. Box 6000
Fredericton, NB E3B 5H1
Telephone: +1 506 444 2339
Facsimile: +1 506 444 5950
Email: michel.daigle@gnb.ca

Jack L. Dalton
Title: Regional Director
Representing: National Interlock Systems, Inc
Address: 420 Market Street
Bridgeville, DE 19933
Telephone: +1 702 337 9600
Facsimile: +1 302 337 9602
Email: jldalton@nationalinterlock.com
Website: www.nationalinterlock.com

Andrew Davidson
Title: Senior Marketing Planner
Representing: Ontario Ministry of Transportation
Address: 1201 Wilson Avenue, Building A, Room 212
Downsview, ON M3M 1J8
Telephone: +1 416 235 3896
Facsimile: +1 416 235 5129
Email: andrew.davidson@mto.gov.on.ca
Nancy Dawson  
Title: Research Officer  
Representing: Transport Canada  
Address: 330 Sparks Street  
\hspace{1cm} Ottawa, ON K1A 0N5  
Telephone: +1 613 991 2025  
Facsimile: +1 613 990 2912  
Email: dawsonn@tc.gc.ca

Claude Dussault  
Title: Chief, Highway Safety Research  
Representing: Société de l’assurance automobile du Québec (SAAQ)  
Address: CP 19600, 333 boul. Jean Lesage  
\hspace{1cm} Quebec, QC G1K 8J6  
Telephone: +1 418 528 4095  
Facsimile: +1 418 646 1003  
Email: claudedussault@saaq.gouv.qc.ca  
Website: www.saaq.gouv.qc.ca

Todd P. Entin  
Title: President  
Representing: Interlock Systems of Texas, Inc.  
Address: 937 Reinli, Suite 22  
\hspace{1cm} Austin, TX 78751  
Telephone: +1 512 302 3625  
Facsimile: +1 512 302 3627  
Email: tpentin@texasinterlock.com  
Website: www.texasinterlock.com

Geoff Ewing  
Title: Deputy Registrar (Acting)  
Representing: Government of Newfoundland and Labrador  
Address: P.O. Box 8710  
\hspace{1cm} St. John’s NF A1B 4J5  
Telephone: +1 709 729 2520  
Facsimile: +1 709 729 6955  
Email: gewing@mail.gov.nf.ca  
Website: www.gov.nf.ca

Tracy Fawcett  
Title: Project Manager  
Representing: Ontario Ministry of Transportation  
Address: 1201 Wilson Avenue, Building C, Room. 318  
\hspace{1cm} Downsview, ON M3M 1J8  
Telephone: +1 416 235 5209  
Facsimile: +1 416 235 4309  
Email: tracy.fawcett@mto.gov.on.ca
Rob Fleming
Title: Director, Service Development and Improvement Branch
Representing: Ministry of Transportation
Address: 1201 Wilson Avenue, Building C, Room 128C
        Toronto, ON  M3M 1J8
Telephone: +1 416 235 4484
Facsimile: +1 416 235 4309
Email: rob.fleming@mto.gov.on.ca

Jim Frank
Title: Research Psychologist
Representing: National Highway Traffic Safety Administration
Address: Impaired Driving Division, NHTSA (NTS-31)
        400 Seventh Street SW, Room 6240
        Washington, DC  20590
Telephone: +1 202 366 5593
Facsimile: +1 202 366 7096
Email: jfrank@nhtsa.dot.gov

Richard Freund
Title: President
Representing: Lifesafer Interlock, Inc.
Address: 512 Reading Road
        Cincinnati, OH  45202
Telephone: +1 513 651 9560
Facsimile: +1 915 651 9563
Email: freund@lifesafer.com
Website: www.lifesafer.com

Mitch Fuhr
Title: Director, Driver Fitness and Monitoring Branch
Representing: Alberta Transportation
Address: 4999 - 98 Avenue
        Twin Atria Bldg., 1st Floor
        Edmonton, AB  T6B 2X3
Telephone: +1 780 422 7982
Facsimile: +1 780 422 9739
Email: mitch.fuhr@gov.ab.ca

Bill Gibson
Title: Coordinator-Strategic Procurement
Representing: Ontario Ministry of Transportation
Address: 34 Oakridge Blvd.
        Fonthill, ON  L0S 1E5
Telephone: +1 905 204 2813
Email: bill.gibson@mto.gov.on.ca
Stephen Hogg  
Title: Consultant  
Representing: KPMG Consulting  
Address: 20 Bay Street, Suite 1100  
Toronto, ON  M5J 2X9  
Telephone: +1 416 775 6095  
Facsimile: +1 416 363 6041  
Email: shogg@kpmg.ca  

Tom Honeycutt  
Title: President  
Representing: Angleton Surety  
Address: 125 E Cedar  
Angleton, TX  77515  
Telephone: +1 979 849 3070  
Facsimile: +1 979 864 3476  
Email: tomh@mcleodusa.net  

Blanche Jeffers  
Title: Program Coordinator  
Representing: Guardian Interlock Service (AB) Ltd.  
Address: 8904 - 60 Avenue  
Edmonton, AB  T6E 6A6  
Telephone: +1 780 469 3838  
Facsimile: +1 780 469 4300  
Email: wcjeffers@guardianinterlock.ca  
Website: www.guardianinterlock.ca  

William C. Jeffers  
Title: Program Director  
Representing: Guardian Interlock Service (AB) Ltd.  
Address: 8904 - 60 Avenue  
Edmonton, AB  T6E 6A6  
Telephone: +1 780 469 3838  
Facsimile: +1 780 469 4300  
Email: wcjeffers@guardianinterlock.ca  
Website: www.guardianinterlock.ca  

Rense Koning  
Title: Managing Director  
Representing: Alcolock Systems Nederland  
Address: St. Oodastraat 13  
5614 AL Eindhoven, Netherlands  
Telephone: +31 40 211 3040  
Facsimile: +31 40 213 8722  
Email: alcolock@wanadoo.nl
Gerald J. Kupferschmidt  
Title: President  
Representing: Forcon Services  
Address: 2046 Oxford Avenue  
Oakville, ON L6H 4K7  
Telephone: +1 905 844 4410  
Facsimile: +1 905 844 6959  
Email: kcs@inforamp.net

Bruce Leete  
Title: State Director  
Representing: National Interlock Service (WI) Ltd  
Address: N1051 Town View Drive  
Greenville, WI  54942  
Telephone: +1 920 752 0962  
Facsimile: +1 920 757 0964  
Email: bleeete@nationalinterlock.com  
Website: www.nationalinterlock.com

John Lefebvre  
Title: Business Analyst  
Representing: Ontario Ministry of Transportation  
Address: 1201 Wilson Avenue, Building C, Room 318  
Toronto, ON M3M 1J8  
Telephone: +1 416 235 4847  
Facsimile: +1 416 235 5309  
Email: john.lefebvre@mto.gov.on.ca

Anne Leonard  
Title: Executive Director  
Representing: OCCID  
Address: 1387 Bayview Avenue., Suite 106  
Toronto, ON M4G 3B3  
Telephone: +1 416 485 4411  
Facsimile: +1 416 485 8879  
Email: occid@sympatico.ca  
Website: www3.sympatico.ca/occid/index.htm

Leslie L. Libbesson  
Title: Managing Director  
Representing: Guardian Interlock Systems A/Asia Pty Ltd.  
Address: 18 Alderson Avenue, North Rocks  
Sydney, NSW 2151, Australia  
Telephone: +61 2 9871 8150  
Facsimile: +61 2 9872 66910  
Email: interlocks@bigpond.com
Bo Lönegren
Title: Senior Project Director
Representing: Vägverket
Address: S-781 87 Borlänge, Sweden
Telephone: +46 243 754 96
Facsimile: +46 243 757 33
Email: bo.lonegren@vv.se
Website: www.vv.se

Ian R. Marples
Title: President
Representing: Guardian Interlock Systems Corp.
Address: 14 - 975 Midway Boulevard
        Mississauga, ON L5T 2C6
Telephone: +1 905 670 2288
Facsimile: +1 905 670 8211
Email: irmarples@guardianinterlock.ca
Website: www.guardianinterlock.ca

Paul Marques
Title: Senior Research Scientist
Representing: Pacific Institute for Research and Evaluation
Address: 8201 Corporate Drive, Suite 220
        Landover, MD 20785
Telephone: +1 301 731 9891, ext 102
Facsimile: +1 301 731 6649
Email: marques@pire.org
Website: www.pire.org

Jean-Claude Mercure
Title: President
Representing: Alcocheck Inc.
Address: 3400 rue Rolland
        Ste-Adèle, QC J8B 1C6
Telephone: +1 450 229 5152
Facsimile: +1 450 229 3868
Email: jcmercure@lr.cgocable.ca

Roger Moore
Title: President
Representing: DWI Solutions, Inc.
Address: P.O. Box 90664
        Austin, TX 78709
Telephone: +1 512 236 1456
Facsimile: +1 512 236 1275
Email: rmoore@austin.rr.com
Andrew Murie
Title: Executive Director
Representing: MADD Canada
Address: 6507C Mississauga Road
         Mississauga, ON L5N 1A6
Telephone: +1 905 813 6233
Facsimile: +1 905 813 8920
Email: amurie@madd.ca

Edie Newton
Title: Executive Director
Representing: Canadians for Safe & Sober Driving/ADD
Address: P.O. Box 397, Station A
         Brampton, ON L6V 2L3
Telephone: +1 905 793 4233
Facsimile: +1 905 793 7035
Email: cssd@safeandsober.ca

Larry Olson
Title: Regional Director
Representing: National Interlock Systems, Inc.
Address: 3424 Lakeside Drive
         Oklahoma City, OK 73179
Telephone: +1 405 203 1800
Facsimile: +1 405 685 8501
Email: lbolson@nationalinterlock.com
Website: www.nationalinterlock.com

Jim Openshaw
Title: Business Development Manager
Representing: Reliance Monitoring Services
Address: Frankland House
         Frankland Road, Blagrove
         Swindon, United Kingdom
Telephone: +44 1793 438 307
Facsimile: +44 1793 438 340
Email: jimo@gssc.demon.co

Pierre Malouin
Title: Conseiller support technique
Representing: Lebeau Vitre d’Autos
Address: 8288 boul. Pie IX
         Montréal, Québec H1Z 3T6
Telephone: +1 514 593 3796
Facsimile: +1 514 329 5645
Email: pmalouin@belroncanada.com
Hal Pruden
Title: Legal Counsel
Representing: Department of Justice
Address: Room 5029 East Memorial Bldg.
Ottawa, ON K2B 7H3
Telephone: +1 613 941 4138
Facsimile: +1 613 941 4122
Email: hal.pruden@justice.gc.ca

Robyn Robertson
Title: Research Associate
Representing: Traffic Injury Research Foundation
Address: 171 Nepean Street, Suite 200
Ottawa, ON K2P 0B4
Telephone: +1 877 238 5235
Facsimile: +1 613 238 5292
Email: robynr@trafficinjuryresearch.com
Website: www.trafficinjuryresearch.com

Jay D. Rodgers
Title: Chairman
Representing: Smart Start, Inc.
Address: 7350 Hawk Rd.
Flower Mound, TX 75022
Telephone: +1 817 430 8793
Facsimile: +1 817 430 3441
Email: jdr@pst@aol.com
Website: www.smartstartinc.com

Johanne St-Cyr
Title: Directrice, Direction des Politiques et des programmes de sécurité routière
Representing: Société de l’assurance automobile du Québec
Address: CP 19600, 333, boul, Jean-Lesage, C-4-2
Québec, QC G1K 8J6
Telephone: +1 418 528 3380
Facsimile: +1 418 643 0828
Email: johanne.st-cyr@saaq.gouv.qc.ca

Dwight Surgenor
Title: Supervisor - Alcohol & Drug Section
Representing: Province of Manitoba Transportation & Government Services
Address: 1075 Portage Avenue
Winnipeg, MB R3R 0S6
Telephone: +1 202 945 5422
Facsimile: +1 204 948 2224
Email: dsurgenor@gov.mb.ca
Peter Van Der Laan  
Title: Consultant  
Representing: KPMG Consulting  
Address: 20 Bay Street, Suite 1100  
         Toronto, ON M5J 2X9  
Telephone: +1 416 775 6527  
Facsimile: +1 416 363 6041  
Email: pvanderlaan@kpmg.ca

Lyne Vézina  
Title: Statistician  
Representing: Société de l’assurance automobile du Québec  
Address: CP 19600, 333, boul. Jean-Lesage, N-6-41  
         Quebec, QC G1K 8J6  
Telephone: +1 418 528 4105  
Facsimile: +1 418 646 1003  
Email: lyne.vezina@saaq.gouv.qc.ca

Robert B. Voas  
Title: Senior Research Scientist  
Representing: Pacific Institute for Research and Evaluation  
Address: 11710 Beltsville Drive  
         Calverton, MD 20705-3102  
Telephone: +1 301 755 7720  
Facsimile: +1 301 755 2799  
Email: voas@pire.org

Catherine Walker  
Title: Operations Manager  
Representing: Draeger Interlock, Inc.  
Address: 185 Suttle Street  
         Suite 209, Durango, CO 81303  
Telephone: +1 800 385 8666  
Facsimile: +1 970 385 5522  
Email: catherine.walker@draeger-breathalyzer.com
Appendix B

List of Interlock Manufacturers
Interlock Manufacturers

1. Alcohol Countermeasure Systems Corp.
   14 – 975 Midway Boulevard
   Mississauga, ON L5T 2C6
   Canada
   Telephone: +1 905 670 2288

2. Autosense International
   683 East Brokaw Road
   San Jose, CA 95112
   Telephone: +1 408 453 1700

3. Consumer Safety Technology, Inc.
   10520 Hickman Road, Suite "F"
   Des Moines, IA 50325
   Telephone: +1 515 331 7643

4. Draeger Interlock, Inc.
   185 Suttle Street, Suite 209
   Durango, CO 81303
   Telephone: +1 970 385 5900

5. Sheram Enterprises, Inc., d/b/a Guardian Interlock Systems
   13 West Park Square NE
   Marietta, GA 30060
   Telephone: +1 770 499 0499

6. LifeSafer Interlock, Inc.
   1908 Hudson Avenue,
   Cincinnati, OH 45212-3702
   Telephone: +1 513 651 9560

7. Smart Start, Inc.
   4850 Plaza Drive
   Irving, TX 75063
   Telephone: +1 972 621 0252