Electronic On-Board Recorders

Discussion Paper

CCMTA

February 2010

1 Introduction

1.1 Purpose of the paper

This discussion paper is to consult with key stakeholders regarding Electronic On-Board Recorders (EOBRs) and the issues related to development of a national standard mandating their use in commercial vehicles in Canada.

The purpose of this paper is to identify key issues with EOBRs and solicit input in order to inform the process of considering a national standard. At this stage in the process, it is not a comprehensive analysis or a policy document; it is designed to guide stakeholder input. The final report, with its recommendations, will be written after the input has been analyzed.

1.2 What we are looking for

This discussion paper presents key considerations associated with EOBRs. We are looking for your feedback with respect to issues such as compliance, data requirements and implementation, and how they apply to your business or area of responsibility. The paper includes a brief discussion on each issue and concludes with some questions to guide your input. Please use the questions as a guideline to respond on whichever issue(s) you wish, but do not be restricted by them.

1.3 Who is involved

This project was initiated in spring 2009 when the Council of Deputy Ministers of Transportation directed the Canadian Council of Motor Transport Administrators (CCMTA) to explore issues related to an EOBR mandate and report back with recommendations in the fall of 2010. A project group was struck, with representation from the provinces of British Columbia, Manitoba and Nova Scotia, and from Transport Canada and Société de l'assurance automobile du Québec (SAAQ), with support from CCMTA. The project chair and project manager are from Ontario's Ministry of Transportation.

1.4 Responses

Your responses are requested by email to: ccmta-secretariat@ccmta.ca. Please write "EOBR Project Group" in the subject line.

You may also send submissions by mail to:

Canadian Council of Motor Transport Administrators
2323 St. Laurent Blvd.
Ottawa, Ontario
Canada K1G 4J8

The responses will be confidential and shared only within the project team. In order to aggregate your responses for analysis purposes, we ask that you tell us which sector you represent, e.g. manufacturer, carrier, industry association, law enforcement.

Please respond by **Thursday March 11th**, 2010.

1.5 What will happen to the responses?

The working group will review and analyze your input as part of the consultation process. Should there be issues on which we believe there is a need for further discussion, we will follow up separately at a later date.

An interim, high level report of the feedback will be made to the CCMTA's Compliance and Regulatory Affairs committee in May and a final, detailed report will be written for presentation to the Council of Deputy Ministers of Transportation in October 2010. The final report will present an aggregated analysis of stakeholder feedback as well as the working group's analysis and recommendations.

2 Background

2.1 What is an EOBR?

An EOBR is an electronic device integrated with a commercial vehicle's on-board systems used to monitor and track driver and vehicle functions such as hours of service (HOS). Electronic on-board recorders can play a valuable operational role for truck companies and provide important data for enforcement personnel as they ensure compliance with hours of service laws.

The key difference between an EOBR and an electronic log is that the EOBR is integrated with the electronic control module (ECM) of the truck and is tamper resistant, whereas an electronic log is an electronic method of recording hours of service along the same principles as the paper log book. An EOBR may be defined as:

> "An integrated technology solution that meets minimally compliant performance requirements that is effective in detecting and recording

driving time, securely manages HOS log data, and efficiently supports driver log inspections."[1]

The IBM Global Business service report "Truck 2020" examines the challenges facing the trucking industry. It notes that telematics and hybridization will be at the heart of new functions in truck operations by 2020. EOBRs are already used on a voluntary basis by some of Canada's carriers and their adoption is growing.

2.2 Where and how are EOBRs used?

Throughout North America, hours of service regulations require commercial drivers' working and resting hours to be recorded in log books. It is well known that paper log books are susceptible to tampering. In the US, McCartt et al (1998) found that 43% of drivers admitted to the fact that they often or always drive more than they show in their log books. As such, there is growing interest in the use of electronic monitoring via EOBRs in the regulatory community and commercial vehicle industry, thereby reducing the potential for log book fraud and tampering.

Several countries already mandate the use of EOBRs and others are considering a regulatory requirement.

In the European Union (EU), the use of tachographs has been compulsory for all trucks over 3.5 tonnes since 1970. Since May 2006, digital tachographs have been required in the EU for all commercial road haulage vehicles registered on or after that date. The device must be integrated and calibrated with a motion sensor in the vehicle. The EU requirement is technically prescriptive and only certain EOBR suppliers are permitted. Drivers' working hours and rest times became regulated in the EU in 2007.

The EC intends to adopt a further amendment to the digital tachograph regulation (EEC 3821/85). The changes concern the technical requirements and are aimed at improving user friendliness and the security of the system. More information can be found at:
http://ec.europa.eu/transport/road/consultations/2010_03_01_tachographs_en.htm

The United States (U.S.) has been looking into the issue of hours of service, its relationship to safety and a potential mandate for EOBRs. It has published a proposed rulemaking but the final rule has not been issued.

The National Transport Commission in Australia is also looking into this subject and in 2009 issued a draft position paper inviting comments on the development of a performance-based specification for electronic heavy vehicle speed and driver fatigue systems. Regulations for the use of electronic work diaries currently exist in Australia but there is no specified level of performance

[1] Dave Kraft, Chairman ATA/TMC EOBR Task Force at EOBR Symposium, Minneapolis, December 2008

for the electronic devices, such as no specifications around how a driver should be identified on an electronic record.

Voluntary Adoption is growing within the industry. Carriers have advised that the main reasons for adopting EOBRs voluntarily include safety, greater efficiency and cost savings. Since adopting EOBRs in summer 2008, one Ontario carrier has seen a reduction in fleet insurance of 45% over 2002, and a fall in driver HOS violations from 20% to 5% with zero falsification. One US company reported annual savings of $50,000 from reductions in processing costs and the ability to better manage drivers' time.

3 Issues under consideration

In December 2008 a symposium was held in the U.S. to discuss key issues relevant to EOBRs.[2] In addition, some organizations have made submissions to provincial and federal governments in Canada to outline their positions. Some of the issues coming out of the symposium; from recorded input; and from the working group's research are reflected in the following discussion.

3.1 Application and Implementation

The applicability of an EOBR requirement is an important issue to both industry and regulators as it "casts the net" and sets the commercial vehicle population to which the rule may apply. Application of a requirement should consider available information to identify areas of compliance problems (e.g. review commercial driver/carrier profiles to identify non-compliance). The application of a requirement also influences costs (compliance costs to carriers and enforcement costs to authorities).

Consideration must also be given to harmonization with the United States. There are close to ten million truck trips a year across the border.[3] Any application of a Canadian regulation cannot be considered in isolation of how U.S. authorities will apply their regulation to carriers.

Some issues for consideration with regard to application and implementation are outlined below:

Exclusion under 160 km radius: While commercial drivers must comply with the applicable Hours of Service regulations regardless if they operate long-haul or within the 160 km radius, drivers typically operating within this radius do not have to maintain logbooks (provided they meet other requirements set out in Section 81(2) of the Commercial Vehicle Drivers Hours of Service Regulation).

---

[2] Link to CVSA EOBR symposium: http://www.cvsa.org/committees/eobr.aspx

[3] Industry Canada: Trucking In Canada - A profile
http://www.ic.gc.ca/eic/site/ts-sdc.nsf/eng/fd00264.html

In-scope Vehicles: What is the cost-benefit of applying an EOBR requirement to all commercial vehicles or only those above a certain weight threshold? Making this determination is influenced by the HOS compliance rate of various vehicle classes. Consideration may be given to capturing vehicles by sector, for example, long haul, inter-city, motorcoach, school buses.

Chronic Offenders: HOS conviction data is readily available in most jurisdictions and targeting an EOBR regulation to those with poor HOS compliance would initially mirror the U.S. approach, and would be an effective and efficient use of resources (capital and enforcement efforts) by going after chronic offenders. It is acknowledged that the viability of this option is predicated on the ability of enforcement personnel to detect non-compliance. The extent to which non-compliance goes undetected is unclear.

Such a risk-based approach could consider data on:

- Non-compliant motor carriers (e.g. conditional safety ratings due to HOS violations);
- Non compliant drivers;
- Type of operations (e.g. are certain industry sectors more compliant than others?);
- Areas of operation (e.g. is compliance higher in certain regions?)

Auditing: As truck companies make investments in technology and the technology itself becomes more advanced, and one assumes, more reliable, it may be possible to reduce some of the audit burden on carriers. A more efficient process would benefit carriers and enforcement officials.

U.S. Harmonization: In 2007, the Federal Motor Carrier Safety Administration (FMCSA) published a notice of proposed rulemaking for EOBRs in commercial vehicles. It is anticipated that the proposed rule would not make the use of EOBRs compulsory for most carriers, but would focus initially on non-compliant companies.

The proposed rule would require updated performance requirements for the devices, including the use of Global Positioning System (GPS) technology or similar systems. The proposal would require EOBRs to record the basic information needed to track the driver's duty status, date, time and location and the distance travelled. The rule proposes that the information should be shown in data and graph-grid formats and there would be a phase-in period for carriers to install EOBRs to meet the new performance standards. The US has already signalled its intent to reduce the regulatory and reporting burden for carriers using EOBRs.

The final rule has not been published but it is expected to be broader in scope than originally proposed, and a subsequent rule is expected later in 2010 that would capture a wider population of carriers.

3.2 Enforcement: Hours of Service Compliance

The current Hours of Service regulation allows an electronic recording device to be used to record the same information as recorded in a paper log. It must be capable of accurately recording the duty status and information required in a daily log. This includes the ability to provide information for the previous 14 days. By regulation, the device is required to automatically record when it is disconnected and reconnected and it must keep a record of the time and date of these occurrences.

The full text is available at:

http://laws.justice.gc.ca/eng/SOR-2005-313/page-7.html

3.2.1 Inspection process

During a roadside inspection an officer will ensure that a driver is in possession of a daily log and that the log includes records of the previous 14 days and is current to the last change of duty status. Officers may then compare any supporting documents in the driver's possession to ensure that the daily log is accurate. This could involve comparing the date, time and location indicated on a receipt produced by the driver to the same time recorded in the daily log to ensure the information matches.

With the advent of electronic devices, there are now many different ways that the information previously written in a log book can be displayed and officers may find the presentation of the data difficult to examine. There is a desire to have enforcement applied in a uniform manner that would maintain a level playing field for industry.

In order to support this objective, CCMTA member jurisdictions agreed to an interim protocol in 2009. This protocol states:

> *"Officers encountering an electronic recording device generated daily log shall request the driver to show the required information on the display of the unit and attempt to determine compliance. If the information displayed is not understandable, officers may request a driver to surrender handwritten daily logs; however, the driver will be given an opportunity to send electronically via fax or email a printed document to the inspection station prior to having to complete and surrender handwritten daily logs. Any printed document received must be signed by the driver attesting to its accuracy."*[4]

There is still a level of uncertainty from law enforcement personnel that EOBRs are able to present consistent, easily accessible HOS information required to comply with the hours of service regulation. Given the variety of EOBR technology currently available on the market, there is minimal standardization

[4] CCMTA News, Summer 2009

concerning the format of the information presented, even though it must be the same information as provided in a paper version of the daily log.

There are concerns around compatibility and interoperability of EOBRs with the systems used by enforcement agencies. With the wide range of systems in use, it is challenging for enforcement officers to quickly and efficiently identify at roadside the information that is required to demonstrate compliance. Each system may require different actions by the officer to access or obtain the data, which could add a new level of complexity to an officer's responsibilities.

3.3 Data Requirements / Privacy

In order to ensure privacy concerns are addressed, there must be certain policies, practices and procedures in place that ensure the driver's personal privacy is effectively protected while allowing enforcement officials to achieve the goal of compliance with hours of service.

Drivers are used to recording their hours on hand-written logs and with the current regulations, commercial drivers are fully aware of the laws requiring them to present HOS records when requested. The information an EOBR provides is no different from that recorded in a paper log for the purposes of hours of service compliance. However, there are differences from a driver perspective in having his own log book in his hand, versus having electronic data stored in a machine and out of his sight and control.

It is reasonable to expect a carrier's support systems to keep original records for the minimum of six months for on-site compliance reviews, and that the administrative support function can make annotated amendments to the driver logs, while maintaining the original contents of the record.

Concerns may be raised about certain driver information in addition to hours of service data being made available to parties such as insurance companies in the event of an accident. Concerns may also exist about enforcement officers, or even other drivers, having access to the information held in an EOBR outside of the current driver's hours of service, e.g. a follow-on driver accessing the previous driver's daily logs. Currently, drivers are obliged to hand over information to a police officer in the event of an accident and there are privacy laws that protect individuals from inappropriate use of data.

There are different ways to identify a driver on an EOBR. One is to have the driver log in to the EOBR using the driver's name and a personal identification number. This method may still be open to fraud should a driver wish to exchange personal information with another driver. Also, a driver may work for one company, then work for another company that uses a different EOBR system and claim to have arrived at the second company following a rest period.

The method used in Europe is for each driver to own a personal smart card. These contain all driver information and are treated like a driver's licence. They are issued under the authority of the European Union (EU)by various official

sources in member countries (e.g. the Driver and Vehicle Licensing Agency in Britain). These cards must be secure and tamper proof with an appropriate security level, e.g. to common criteria level 4[5]. Additionally, there must be a method to maintain central control over card issuance, return, void cards, etc that can establish that a driver has only one card in his/her possession. In addition to the driver smart card, the EU system also requires a company card, which protects company-related data in digital tachographs. It allows the company to lock data recorded in the vehicle unit to prevent another operator from downloading the data. The cards must be periodically renewed and a fee is charged for driver and company cards. They also require a workshop card for calibration workshops and a control card for law enforcement officers. The control card allows law enforcement to access the mass memory of digital tachographs and driver card data; allows printouts, display and download of relevant information; and has a limited validity period.

One possible approach for Canada is to use a driver smart card whereby a unique number is allocated to a user. Radio Frequency Identification (RFID) technology would read the number with the personal information embedded in the card. A key concern is likely to be the ability to impersonate a driver or forge a lost, stolen or out of date card. The inter-provincial records exchange system currently functions as a source for validating driver's licences, enhanced driver's licenses and tracking their distribution province to province.

3.4 Safety

The safety concerns of fatigued commercial drivers are well documented, and new hours of service regimes and philosophies have emerged. However, there is limited data to support the assertion that EOBRs would significantly improve the rate of fatigue related accidents involving commercial vehicles.

Fatigue is caused by inadequate sleep, excessive time awake, daily circadian low periods (3-6 am and 2-4 pm), and individual differences in fatigue susceptibility. It is not surprising that the highest number of crashes occur during the period between midnight to early morning – more than 40% occur between 1am and 7am[6].

Hours of service recording has been taking place across different parts of the world for many years. This recording takes place in recognition of the fact that crashes involving a driver are more likely to occur in sleep deprived individuals.

---

[5] Common criteria is an internationally accepted language for writing security standards, by which a vendor describes their products' security functionality and then offers proof that it delivers those features specified. The criteria can be applied to hardware, software or firmware products alone or combined. Canada and the US are among the 13 countries with their own schemes able to issue certificates. (*Courtesy of Corsec Security Inc*)

[6] Advanced Driver Fatigue Research, FMCSA, April 2007

Fatigue is the most commonly cited cause (31%) of fatal accidents involving a heavy vehicle (NTSB, USA, 1998).

Companies using EOBRs report improved compliance with hours of service; however, there are no empirical data to show that EOBRs directly reduce driver fatigue.

It has been suggested that the real benefit from EOBRs comes from record keeping efficiencies, streamlined compliance, and improved driver management. In terms of safety, EOBRs better help managers and fleet operators identify high-risk drivers, specifically those who consistently violate hours of service rules or who have risky driving styles.

3.5 Technology / Tamper Proof

The IBM survey "Truck 2020" found that technology progress was rated as the second most important external force influencing the industry today and would be the most important by 2020. The technology is not limited to the vehicles themselves, but also to capabilities that will increasingly be imbedded in things like traffic signals and roads, allowing them to interact with trucks. Customers want transport solutions, and one key element in providing that solution is telematics. Not only can EOBRs play a valuable role in providing efficient and effective regulatory compliance, but technological advances could provide, for example, remote diagnostic and software patching capabilities.

By definition, an EOBR is electronically linked to the vehicle, usually the electronic control module (ECM) and sometimes other sensors. This does not include stand-alone devices that use software to electronically record daily logs, such as laptop computers or cell phones.

The *Commercial Vehicle Drivers Hours of Service Regulations* (SOR/2005-313) sets out the requirements for electronic recording devices. It states that the device must be capable of displaying:

i. The driving time and other on-duty time for each day on which the device is used;

ii. The total on-duty time remaining and the total on-duty time accumulated in the cycle being followed by the driver, and

iii. The sequential changes in duty status and the time at which each change occurred for each day on which the device is used[7].

The same section requires that:

"(e) the device automatically records when it is disconnected and reconnected and keeps a record of the time and date of these occurrences."

[7] Federal regulation, Section 83, paragraph c

Other requirements are that the device is able to transmit, directly or indirectly, to the owner of the vehicle, the driver's logs in the same way as the information that would have been provided if it had been submitted as a daily log in paper format. They must include all the information required for the daily log and for the 14 previous days. It is also a requirement that this information can be transmitted, on demand, to a commercial vehicle inspector.

The regulatory requirements for recording and producing evidence of hours of service compliance are explicit, but opportunities clearly exist for additional functionality. A user has the option of adopting basic, moderately enhanced or quite technologically and functionally advanced systems.

As more and more carriers adopt EOBRs for either simplifying hours of service recording or for more complex activities, the issue arises about whether a standard should require data to be collected in a consistent manner, or allow variations. The issues to consider are whether an approach should be technically specific or technically flexible. Technically specific criteria mean that the specific type of hardware and software is mandated. This would mean that all carriers would have the same basic system and would simply share information; it is the approach used in Europe. A technically flexible approach means that carriers are free to use any hardware and software they choose and the only specific requirements are the information they collect and how it is accessed and presented (reporting formats).

In order to ensure that original data has not been altered, the system must allow changes to be made only to a copy of the original data. Any modifications to the hours of service records must be capable of being recorded and validated for audit purposes.

3.6 Economic Considerations

There are two major economic considerations with respect to EOBRs:

1. Cost; and
2. Competitiveness.

The cost of EOBRs is a major concern for carriers, particularly for smaller carriers and owner-operators. Cost has been cited as one of the major reasons why smaller carriers and owner-operators, and their associations, have opposed a mandatory EOBR requirement. The Owner-Operator Independent Drivers' Association stated in *The Trucker* (January 7, 2010) that the technology is costly and that the accident data for carriers that have adopted EOBRs do not demonstrate improvements in safety. The cost of EOBRs is also a concern for carriers that operate only on a part-time or seasonal basis.

The cost of EOBRs appears to be declining as the technology evolves and as the market for it continues to expand in response to carriers adopting this technology for a wide range of business applications. However, the costs of EOBRs are also dependent on the complexity of the units and the features carriers opt for;

EOBRs that simply manage HOS are cheaper than units that monitor trip inspection and other requirements. One carrier replaced its EOBR system with a newer version and reported significant savings in capital and operating costs while still having the same system features available.

A number of carriers and carrier associations have acknowledged that cost is a significant factor but have put forward various proposals for addressing this issue. A realistic and reasonable time frame for implementing EOBRs will help carriers to manage the costs of adopting the technology.

In assessing the costs of EOBRs as an economic consideration, one aspect that complicates the assessment is that while a number of potential benefits have been enumerated for carriers that adopt EOBRs (savings in drivers' time in recording hours of service, fewer fines, less back office staff time, better fleet insurance rates, improved fatigue management and health benefits for drivers, more efficient fleet management, etc.), these benefits are more difficult to quantify in relation to the bottom line than the capital and operating costs of purchasing and using these systems.

Competitiveness is the other major economic consideration in assessing EOBRs. Given the capital and operating costs of implementing and using EOBR systems, some carriers want to see EOBR requirements that apply as widely as is necessary and possible across the trucking industry, and that are harmonized as much as possible among jurisdictions, particularly between Canada and the U.S. However, the costs to smaller carriers will be proportionally higher than the larger companies. To the extent that EOBR requirements can be made universal and harmonized, this will ensure a "level playing field" for carrier competition.

Aside from their own impacts on competitiveness, EOBRs can help level the playing field in other ways. To the extent that EOBRs can ensure that all carriers comply with hours of service regulations, they will ensure that carriers cannot compete unfairly by illicitly lengthening drivers' hours of service in order to lower costs for themselves and the companies they serve.

3.7 Manufacturer Considerations

The number of EOBR manufacturers and units commercially available is rising, largely driven by market demand. There are a number of concerns for manufacturers, notably, the lack of direction on the hardware or software requirements, other than the minimum requirement stipulates that units must comply with Article 82 (Content of Daily Logs) of the "*Canadian Commercial Vehicle Drivers Hours of Service Regulations*."

It is generally agreed that the EOBR system itself must be integrated into the truck, in order to minimize tampering, and it must produce the required records upon request. However, the technical specifications for the systems are vague, and there are concerns that a system accepted in one jurisdiction will not be accepted in another. Factors that manufacturers need to consider include any proposed standard being prescriptive enough to minimize excessive variability in

some key areas (level of tamper resistance, hardware and software interfaces, data exchange processes) so that interoperability between EOBRs from different suppliers is ensured and that consistent data can be presented to enforcement agencies while managing the overall costs.

3.7.1 Key EOBR Requirements

- **Efficiency**: Record keeping should be as easy and uncomplicated as possible.
- **Accuracy**: Automated determination of driving time, recurring data, and record entries should make the system more accurate than manual entry and the human related errors that occur, perhaps supported by GPS.
- **Driver Awareness**: A driver should have accurate and easily accessible monitoring of current driving time and remaining driver time, as calculated by the EOBR.
- **Carrier Management**: A carrier should have timely and accurate records of drivers' hours in order to better plan load assignments and manage schedules. The cost should be kept to a minimum for industry's benefit.
- **Reporting**: The system should be able to provide clear, consistent reports in both official languages to compliance officers that meet the requirements of the Hours of Service Regulation, when requested.

3.7.2 Issues with EOBR

- **Standardization**: Differences in EOBR systems can make it difficult for inspectors to easily verify the records. In addition, poor or awkward displays can make an inspector's job much more difficult and frustrating. Driver ID protocol should be secure, unique and standard so all EOBRs can use the same ID.
- **Falsification**: Without strict standards, EOBRs don't necessarily solve the problem of log falsification. A driver may not log onto the system immediately he/she starts to drive the vehicle, or a driver may maintain two system identities. An issue for manufacturers is potential use of a portable data carrier to ensure that drivers' data can be moved between different EOBRs when a driver changes trucks.
- **Security**: With a number of different systems, it may be difficult for compliance officers to ensure that the system is accurate and is maintaining accurate information. All carriers and enforcers need assurance that all devices have the same level of tamper resistance.
- **Paperless**: Without a printer or means of transmission to a compliance officer, it is difficult to capture any violation at the inspection site.
- **Enforceable**: An EOBR system must be accurate enough and reliable enough to be accepted in court.

3.7.3 EOBR Standards

When exploring EOBR standards, manufacturers seem to prefer a data and information standard, rather than a software - hardware standard. A data and information standard would provide manufacturers the flexibility in designing systems that can be tailored to a specific carrier. A large fleet, for example, may wish to utilize a fully integrated EOBR system, tying in GPS, communication, dispatch, and log books into one system linked by satellite. A smaller operator, however, may not have the need for such a sophisticated system, but would like something simpler that is installed in a truck and can be accessed through a PDA, such as an iPhone or Blackberry. In addition, a data/information standard would provide manufacturers the flexibility to leverage existing and cost effective technologies to meet their needs, rather than look for a custom built device.

On the other hand, specifying a hardware and/or software standard would eliminate the flexibility that can be gained from the information standard. A manufacturer that is required to use a certain type of technology may not have the flexibility to provide service to his customers. However, certified devices would make it easier to ensure that the system is accurate and not tampered with, and would also provide a consistent, uniform output for officers.

3.8 Questions:

These questions are not meant to be comprehensive, but are intended to guide your input; please do not feel obliged to answer every question if it's not relevant. The questions may not cover all the key issues so please provide additional commentary as appropriate.

I. Should an EOBR requirement apply to all vehicles captured under the current Hours of Service regulation, or others? Are there circumstances under which an exemption from an EOBR requirement might be warranted?

II. Should there be less frequent audits, or fewer records reviewed during an audit, as use of EOBRs might suggest a higher level of compliance?

III. Given the volume of trucking that occurs between Canada and the US, what are the *most important* issues on which to harmonize EOBRs in Canada with the US? (e.g. chronic offenders or all in-scope vehicles)

IV. What can be done to increase confidence in the law enforcement community that they are receiving reliable and consistent information?

V. Would you support law enforcement personnel use of hand held, wireless technology to obtain the required HOS compliance data electronically? This could be done while the vehicle is in motion, travelling down the highway or while parked in a safe location.

VI. Please outline privacy concerns related to information on drivers, carriers, or others contained in EOBRs or the way that information is stored or shared? How would data be protected on a law enforcement system?

VII. How best should a driver be identified?

a) If driver smart cards are a preferred option:

- who should issue them?;
- what information should they contain?;
- how can provinces and territories best ensure they are not fraudulently used, while maintaining user privacy? (e.g. would biometrics like a fingerprint be viable?); and
- is the European system of control, workshop and company card preferred or is there a better way of overseeing driver information?

VIII. Outline what you see as the most significant safety benefits from using EOBRs.

IX. Should Canada adopt a technically specific or technically flexible approach? If technically specific, how would the specification be maintained over time as technology advances?

X. How could a potential standard make best use of the technology for HOS recording but permit other functions of use to the carrier?

XI. Thinking about a tamper resistant product, what is needed in order to ensure a secure system? (e.g. sensor integration, accuracy, calibration, and system certification)

XII. Please provide your views on any concerns related to upfront costs and potential savings.

XIII. What would be a reasonable phase-in period for governments to allow carriers to purchase and implement EOBRs in their fleets?

XIV. Should EOBRs be third party certified? If so, what's the best method of certification?

XV. How else could manufacturers assure reliability?

3.9 And finally …

Are there any key issues on which you would like to submit comments that have not been discussed above?

4 Next Steps

Responses to these issues will be returned to the project's working group for review and discussion. Your feedback will be confidential within the working group. The analysis will be presented in an aggregated format identifying only the type of organization from which it came, e.g. law enforcement, carriers.

The report and recommendations will be drawn up and presented to the Council of Deputy Ministers in October.

We encourage your input in writing. Should you wish to ask questions about this project, or require further information about the process described above, please contact the Project Manager, Susan Gallimore, at 905 704 2277, or by email: susan.gallimore@ontario.ca

Thank you very much for taking the time to submit your response, and we look forward to receiving your comments. Please respond to the CCMTA email address at ccmta-secretariat@ccmta.ca by the comment deadline of **Thursday March 11th**, 2010.

- END -