

# INFORMATION BULLETIN

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## ELECTRONIC ON-BOARD RECORDERS: A GROWING TREND

Intelligent transport systems have been redefining our driving environment over the past few years. Among the new technologies that have emerged are electronic on-board recorders (EOBRs). These devices replace paper format daily logs with an on-screen electronic log.

The purpose of this bulletin is to clarify the definition and terms of application for EOBRs for the road transport industry and various stakeholders.

## REGULATION RESPECTING THE HOURS OF DRIVING AND REST OF HEAVY VEHICLE DRIVERS – ORDER IN COUNCIL 367-2007 (REGULATION)

The Regulation sets out the requirements for driving and off-duty time for heavy vehicle drivers and establishes a framework for using EOBRs. Sections 29, 30, 31, 32 and

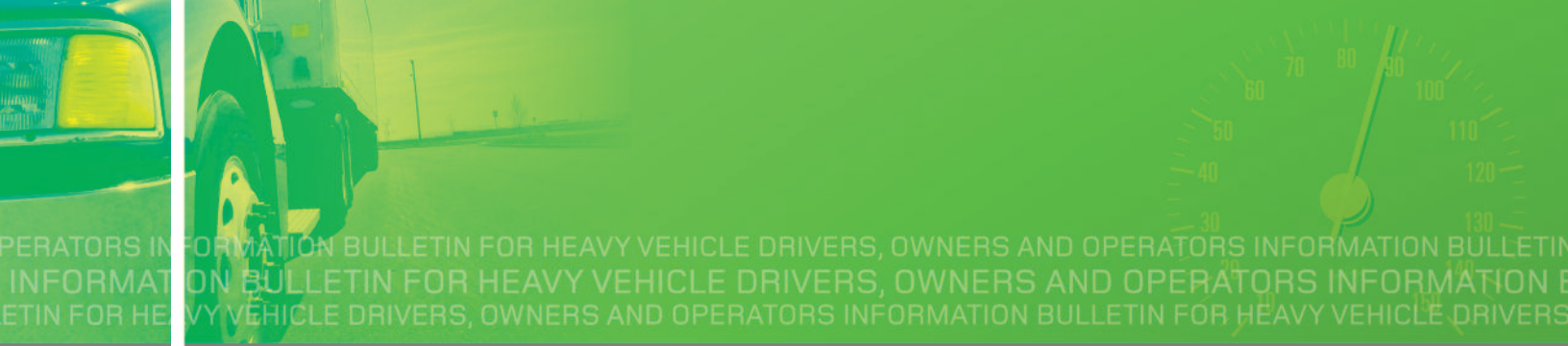
34 of the Regulation deal with conditions of use for daily logs. Section 33 deals specifically with conditions of use for on-board recorders and electronic daily logs.

### **33. A driver may use an electronic recording device for recording duty status if:**

1. *the information contained in the electronic recording device is the same as the information that would have been provided if it had been submitted as a daily log in paper format;*
2. *the device is capable of displaying*
  - a. *the hours of driving and other hours of service for each day on which the device is used;*
  - b. *the total hours of service remaining and the total hours of service accumulated in the cycle being followed by the driver; and*
  - c. *the sequential changes in duty status and the time at which each change occurred for each day on which the device is used;*
3. *when requested to do so by a peace officer or an inspector, the driver can immediately provide the information for the previous 14 days by producing it on a digital display screen of the electronic recording device or in handwritten form or on a print-out or any other intelligible output, or any combination of these;*

C-4923-5-A (11-10)





4. *the driver is capable, if so requested by a peace officer or an inspector, of preparing a handwritten daily log from the information stored in the device for each day on which the device is used;*
5. *the operator provides blank daily log forms in the heavy vehicle for the driver's use;*
6. *the device automatically records when it is disconnected and reconnected and keeps a record of the time and date of these occurrences;*
7. *the device records the time spent in each duty status of the driver; and;*
8. *any daily log in paper format that is generated from the information that is stored in the device is signed on each page by the driver attesting to its accuracy.*

Schedule II of the Regulation, with its associated "Instructions", specifies that a daily log must have a graphical format and that it must include the name of the municipality or failing that, the route or post indicating the distance in kilometres or miles, as well as the province, territory or state where the change of duty status took place. These rules also apply to electronic logs. In addition, as provided for under section 34 of the Regulation, drivers must have in their possession a copy of the daily logs for the preceding 14 days in their graphical format, whether paper or electronic.

## AN ACT TO ESTABLISH A LEGAL FRAMEWORK FOR INFORMATION TECHNOLOGY (THE ACT)

Since 2001 in Québec, this Act has defined guidelines concerning the use of technology-based documents. Electronic daily logs are technology-based documents and therefore must be in compliance not only with the *Highway Safety Code* and the Regulation, but also with this Act dealing with information technology.

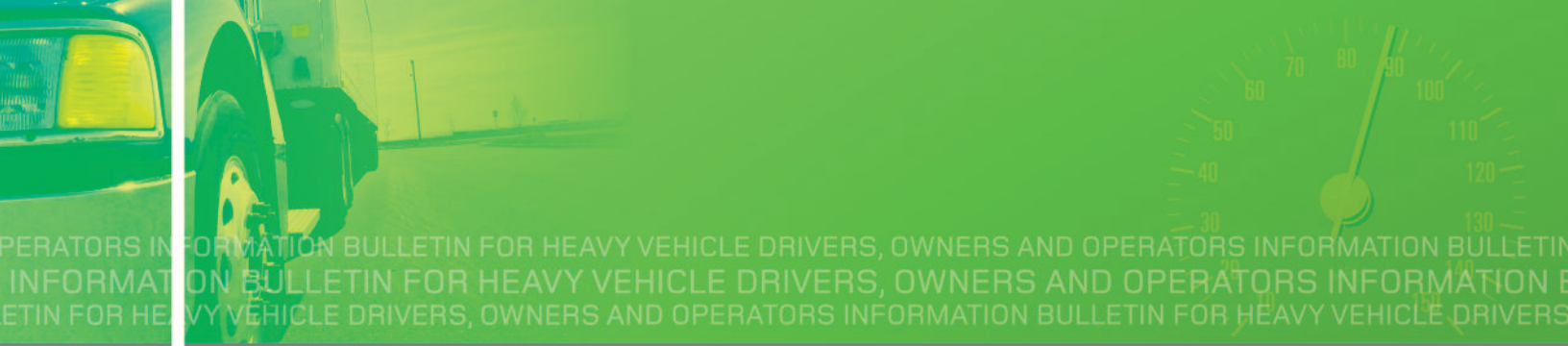
The **integrity** of a document is fundamental to its value. As with a paper document, a technology-based document that has been altered is no longer valid.

An **electronic signature** is, with certain exceptions, legally acceptable. Signatures must always allow for two essential aspects in connection with technology-based documents. First they must identify a person, and second, they must show the approval, commitment and consent of that person with regard to the document in question.

Given the importance of the daily log in verifying driving and off-duty time for drivers, and considering the orientations set out in the Act, the log must be unalterable and identify the driver who completes it. The programming must be such that any alteration by the driver, operator or system administrator must leave visible marks. If the original format is changed during transfer, transmission or retention processes, a reference to the original format must also be noted. If a log is printed, the rules for a transfer of medium apply. Modification of log data also needs to be documented.

Thus, what is important is the combination of the integrity of the document and the identification of its author or any other person who intervenes in the document. An appropriate document management system can ensure the integrity of a document and make the identity of its author unalterable.





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## APPLICATION AND MONITORING OF EOBRs

Given the proliferation of EOBRs over the last few years and because a guideline was required, in June 2009 the Canadian Council of Motor Transport Administrators (CCMTA) published an application protocol in this regard:

*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.*

Inspection stations and carrier enforcement officer vehicles are not yet fully equipped with complete information technology systems. Therefore, consultation of documents through Web

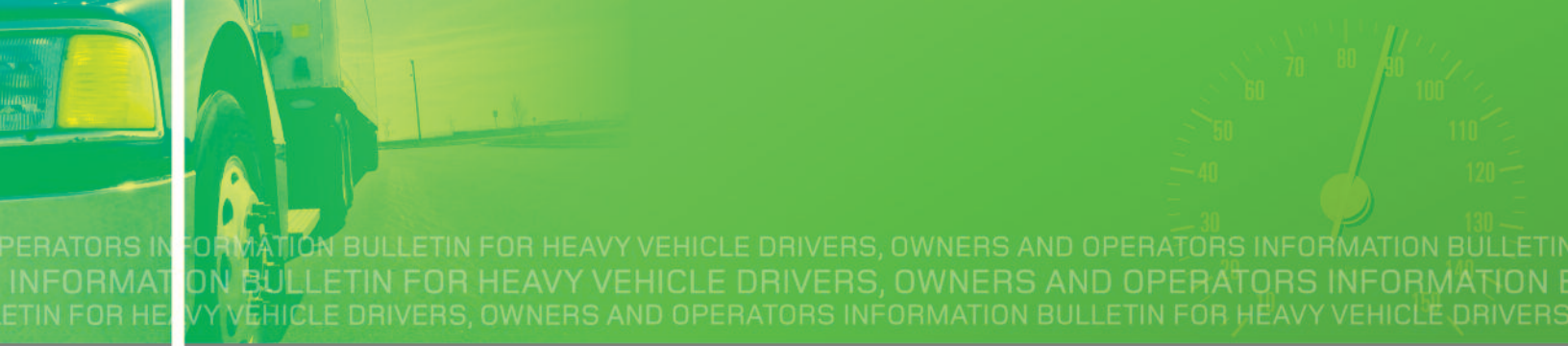
applications or email transmission is not possible at the current time. Thus, if officers cannot consult daily logs directly on the display of the unit for the current day or the 14 preceding days, they may request the driver to send them by fax. They will provide the driver with a fax number at an inspection station; the driver will ensure that the electronic daily logs in question are sent. Once the inspection station receives the logs, the driver must sign them to attest that they are valid. The documents must be sent within a reasonable time. If not, officers may require them to be handwritten. The same could also be required if the content of the logs is not understandable, or if for any other reason using the fax is not conclusive or impossible to carry out. In accordance with paragraph 5 of section 33 of the Regulation, blank daily log forms must be in the heavy vehicle at all times. Lastly, the transfer of information by fax will only be used in the case of monitoring at an inspection station; inspection at any other location automatically excludes this type of procedure.

## TECHNICAL SPECIFICATIONS OF EOBRs

It is important to differentiate between on-board recorders and "home-made" programming systems that can generate electronic versions of daily logs. These "home-made" logs are created by the driver or operator via a program using unprotected software, downloaded onto a smart phone or laptop computer. Although there is no legal prohibition from using the electronic version of a daily log, regardless of where it comes from, these "home-made" programs do not comply with the requirements for the integrity and non-alterability of documents as referred to in the *Act to*

*establish a legal framework for information technology.* Often, it is not difficult to alter such documents. Thus, for the moment, these programming systems are not recommended and are not interpreted as being electronic on-board recorders within the meaning of section 33 of the Regulation, but rather as working tools for completing the standard paper copies of logs. An EOBR is a device normally installed on-board a heavy vehicle and plugged into an engine control module (ECM). Since technology is continually evolving, other types of systems are also currently being studied and are under discussion.





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Currently, there is no form of government certification or accreditation for EOBRs. As a result, acceptance criteria are based on the so-called "functional" specifications outlined in this bulletin. A device that meets the regulatory and legislative requirements, and the application conditions outlined in this bulletin is therefore

authorized. Work is in progress to develop a Canadian standard for EOBRs. This process will no doubt also have repercussions on some of the parameters discussed above. All the regulatory, legislative and protocol changes, if applicable, will be published in a timely manner.

### **USEFUL LINKS**

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**Know Your Law: Guide respecting the management of technology-based documents**

[http://www.fondationdubarreau.qc.ca/export/sites/fondation\\_fr/pdf/publication/Guidetech\\_EN.pdf](http://www.fondationdubarreau.qc.ca/export/sites/fondation_fr/pdf/publication/Guidetech_EN.pdf)

**Regulation respecting the hours of driving and rest of heavy vehicle drivers**

<http://www.saaq.gouv.qc.ca/en/laws/index.php>

**Commercial Vehicle Drivers Hours of Service Regulations (National Safety Code Standard 9)**

<http://www.gazette.gc.ca/archives/p2/2005/2005-11-16/html/sor-dors313-eng.html>

**Highway Safety Code**

<http://www.saaq.gouv.qc.ca/en/laws/index.php>

**Act to establish a legal framework for information technology**

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=%2F%2FC\\_1\\_1%2FC1\\_1\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=%2F%2FC_1_1%2FC1_1_A.htm)

