



**EUROPEAN COMMISSION**  
DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT  
DIRECTORATE E - Inland Transport

## **CONSULTATION PAPER**

### **REVISION OF THE COMMUNITY LEGISLATION ON THE RECORDING EQUIPMENT IN ROAD TRANSPORT (TACHOGRAPHS)**

## INTRODUCTION

The Community road transport legislation provides for harmonised rules on maximum driving hours and minimum breaks and rest periods in order to ensure road safety, fair competition between undertakings and good working conditions for drivers. These rules apply for all drivers engaged in the transport of goods with vehicles of 3,5 tons laden mass and more and for drivers engaged in the transport of passengers with vehicles for 9 persons and more. Compliance with these rules is controlled through a recording equipment that has to be installed in vehicles falling under the scope of this legislation.

Since May 2006, the digital tachograph has become the mandatory recording equipment for new vehicles. While the necessary adaptation of this device to technical progress is regularly carried out by the Commission, it is now considered appropriate to review the legislative framework which dates back to 1985 in order to

- enhance the clarity, readability and enforceability of the rules concerning the recording equipment and
- provide for a new generation of more secure, user friendly and interoperable recording equipment.

The purpose of this document is to outline these plans and to seek the opinion of the interested parties. The consultation focuses on the recording equipment only, and does not consider the rules on driving times and rest periods which were adopted by the European Parliament and Council in 2006.

Based on the feedback received in this initial consultation, DG TREN will decide whether and how to proceed. The contributions received will be published by the Commission, unless requested otherwise by their author. The contributions should include the name, details, functions and main objectives of the organisations which send them.

Comments should reach the Commission's services no later than the **1 March 2010** at the following address:

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## **1. BACKGROUND: THE COMMUNITY ACQUIS ON RECORDING EQUIPMENT**

Since its introduction, Council Regulation (EEC) No 3821/85 on recording equipment in road transport<sup>1</sup> has been amended by 16 legal acts, mainly in order to adapt the annexes to technical progress. The most important amendment has been the introduction of the digital tachograph through Council Regulation (EC) No 2135/98<sup>2</sup> and Commission Regulation (EC) No 1360/2002<sup>3</sup>. In 2009, the responsible Committee gave a favourable opinion on the tenth adaptation to technical progress of the annex; it will improve user-friendliness and increase the reliability of the system. The consolidated version of Council Regulation (EEC) No 3821/85 contains 269 pages.

The most important legal acts referring directly to Council Regulation (EEC) No 3821/85 are the following.

Regulation (EC) No 561/2006 on the harmonisation of certain social legislation relating to road transport<sup>4</sup> defines maximum driving times and minimum rest periods. It contains several references to the recording equipment, in particular imposing the driver to record also other working activities than driving and periods of availability.

Directive 2006/22/EC on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85<sup>5</sup> sets minimum targets for the control by Member States of the application of the social legislation by drivers and undertakings. From 1 January 2010, 3% of days worked by drivers of vehicles falling within the scope of Regulations (EC) No 561/2006 and (EEC) No 3821/85 have to be checked; not less than 30 % have to be checked at the roadside, and not less than 50 % have to be checked at the premises of undertakings. The directive also requires Member States to equip and train their control officers for the control of the digital tachograph.

The recording equipment is the central element to control the application of the legislation on driving times and rest periods in order to ensure road safety, fair competition and good working conditions for drivers. The digital tachograph is installed in more than 1.5 million

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<sup>1</sup> Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport, OJ L 370, 31.12.1985, p. 8

<sup>2</sup> Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/84 and (EEC) No 3821/85, OJ L 274, 9.10.1998, p. 1

<sup>3</sup> Commission Regulation (EC) No 1360/2002 of 13 June 2002 adapting for the seventh time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport, OJ L 207, 5.8.2002, p.1

<sup>4</sup> Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, OJ L 102, 11.04.2006, p.1

<sup>5</sup> Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC, OJ L 102, 11.04.2006, p. 35

vehicles and used approximately by more than 3 million drivers, 35.000 enforcers and 900.000 undertakings in the European Union. From June 2010, the digital tachograph will become also mandatory for new vehicles used in the international transport by the non-EU Contracting Parties of the AETR<sup>6</sup> which adds 22 countries outside the EU in Europe and in the Commonwealth of Independent States.

## **2. CHARACTERISTICS OF THE NEXT GENERATION OF TACHOGRAPHS**

### **2.1. Functioning of the recording equipment**

The current legislation Council Regulation (EEC) No 3821/85 and its annexes contain very detailed technical prescriptions on the recording equipment and in particular on the digital tachograph. While this may be convenient for control officers and drivers who change regularly from vehicle to vehicle, it leaves manufacturers not much room for innovation and improvement of the equipment.

**Question 1** - Is it important that equipment of different manufacturers functions in exactly the same way?

From the enforcer's point of view it would also be advisable to produce vehicle units, which indeed operate exactly in the same way.

Or should legislation focus on essential requirements and give manufacturers more freedom to develop solutions and improve the equipment? By showing some flexibility we could imagine fixing the requirements important for the enforcement community like data downloading, card ejection, making printouts and display functions in the legislation while giving more freedom to the industry concerning other features.

### **2.2. Integration of ITS applications**

The Commission foresees in its Action plan on Intelligent Transport Systems (ITS) (COM(2008)886) the development of open in-vehicle platform architecture, designed to be flexible and extendable in time, to afford the integration of different categories of ITS applications expected to come: enforced safety and security applications (like the DT or the e-call), fleet management systems, traffic management systems, navigation and information systems, etc. This effort should facilitate the integration of the different systems, and prevent the senseless multiplication of independent equipments on board.

The experience accumulated with the introduction of the digital tachograph, (first enforced ITS equipment in trucks and busses), could be central for the development of this open in-vehicle platform for commercial vehicles.

This concept of platform is intrinsically connected to the growing ICT implication in transport, and will therefore be supported by an advanced communication module (radio, GSM, UMTS, GNSS, etc.) allowing for possible 'tracking and tracing' applications.

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<sup>6</sup> European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport

**Question 2** - Should the legislation on the tachograph already foresee the integration of the digital tachograph into an open in-vehicle platform?

Yes, definitely, possibility for integration into future systems must already be created today.

If so, what other regulatory applications should be integrated in this platform (e.g. e-toll, recorder for accident investigation, e-call, speed control) and why?

e-call, black box like device (accident investigation), GNSS, optionally e-toll

Would it be interesting for fleet management or other applications related to safety or security of transport, or to law enforcement, to have a real-time "tracking and tracing" function?

Tracking would be indeed highly welcome as a crucial system, which is able to support road security for example to identify hot-spots, but from the roadside inspectors' perspective it would be supportive to uncover manipulations.

### **2.3. Remote download of recorded data and speed of downloading**

The legislation in place already allows remote download of data recorded by the digital tachograph by the transport undertaking. Recently, the necessary equipment for remote download has been made available on the market. For undertakings that use this possibility of remote downloading, administrative burdens are reduced: drivers do not need to download their driver card after 28 days; the data from the tachograph does not have to be downloaded at the premises every three months, etc. The system also shows advantages for control activities: recent data is available in case of a check at premises and no data is lost in case of a breakdown of the equipment. The additional cost of the remote downloading equipment has to be balanced by the above-mentioned benefits.

**Question 3** - Should remote download of the digital tachograph be encouraged? Is a regulatory approach deemed appropriate in order to facilitate widespread introduction?

Yes, a provision is to be envisaged in the recast of the regulation since without regulating we're afraid that the use won't become that widespread.

Downloading of data from the recording equipment (tachograph and driver card) should not take more than a few minutes.

**Question 4** - What is your practical experience? Are there any obstacles for speedy download of data?

Based on our experience with the recent VUs reasonable download speed can already be achieved, even with older ones an acceptable speed can be obtained if the inspector abstains from downloading detailed speed data. We don't anticipate any obstacles in the future mainly due to the fact that VUs will be improved in this regard as already foreseen in preamble (21) of COM regulation 1266/2009.

## 2.4. Improvement of controls

The purpose of recording equipment is the control of compliance with legislation on driving times and rest periods. Through the introduction of the digital tachograph, roadside checks have become more efficient as more days per check are controlled, but they still take considerable time. If the recording equipment would be able to communicate wireless to the outside, a mobile control of moving vehicles would be possible, for example by a control vehicle passing by the controlled vehicle on a highway. This would prevent that trucks and busses that comply with the regulation would be stopped.

On the same line, it could be possible to perform 'basic' controls with tachographs communicating a restricted set of sensitive parameters (e.g. to check whether the driver card is inserted, or if the tachograph is in driving mode) to fix or mobile infrastructure, while the truck is driven. This could help to screen and filter the trucks before a control, increasing the efficiency of the control.

In addition, the digital tachograph records certain events which for example may indicate attempts to tamper the equipment. However, the respective warnings provided by the equipment are not always unambiguous.

**Question 5** - How could the equipment be changed in order to make controls more efficient?

Besides speedy downloads an in-built radio communication system assisting pre-selection would be helpful.

Should the mobile control of moving vehicles be envisaged in order to reduce administrative burden for industry and enforcement bodies?

We support this initiative, since such 'mobile' methods already do exist for filtering out vehicles with technical defects (for example break systems or even emission measurement with the help of respectively heat and iR cameras).

## 2.5. Security level of the system

One of the main objectives for the introduction of the digital tachograph was to improve the security of the system and the reliability of the data that could be controlled. Three years after its introduction, it appears that the digital tachograph has been an improvement compared to the analogue tachograph. The Commission has continued to work on the security, in particular by introducing the requirement for the equipment to have a second source of motion and the requirement that the motion sensors either detect magnetic fields or is protected from them.

However, updating the technical requirements to progress remains a moving target, as IT developments are ongoing. For the same level of security using the same technological choice, requirements become more difficult to meet, possibly leading to interoperability problems.

**Question 6** - Is the current security level proportional?

Purely from a security (certificate) point of view the level at which the current DTs are certified can only be met if improvements (key lengths) are following the IT trends in this regards. If the question consist to know whether the system is secure enough then yes, the protection against magnetic fields of the MSs and capability to detect tampering should be sufficient, while at the same time standardize other important elements, like seals.

Can and should there be other sources of motion? Yes.

Could the authenticated time/speed/positioning data provided by the future European "GPS" system, Galileo, be used as a second and independent source of motion to ensure security of data? Of course this is probably the most appropriate solution to use GNSS, but any delay in the entry into service of the Galileo system should not have any side effect on the implementation of this feature and therefore maybe a reorientation towards the GPS should also be considered in that case. (Dual satellite receiver should be included capable of capturing signals from both systems)

### **3. PRINCIPLES AND SCOPE**

#### **3.1. Scope of the regulation**

Under the current legislation, the vehicles that fall under the scope of Regulation (EC) No 561/2006 have to be equipped with recording equipment according to Council Regulation (EEC) No 3821/85. Regulation (EC) No 561/2006 provides for a certain number of exceptions; in addition, Member States can grant certain exceptions as defined in the Regulation. Parliament and Council have thoroughly discussed and carefully established these exceptions before adopting the Regulation (EC) No 561/2006.

However, claims of certain users have arisen that the recording equipment leads to too much administrative burden in cases where driving is not the driver's main activity and when the vehicle falls only from time to time within the scope of the Regulation on driving times and rest periods. These claims have of course to be considered against the objectives of Regulation (EC) No 561/2006 and the capability to control the application of its provision.

**Question 7** - In case a vehicle is only occasionally used in the scope of Regulation (EC) No 561/2006, for example when exceeding from time to time the radius set in some exceptions, should it be possible to use different means of recording activities?

In our opinion the out of scope mode should be used even in such cases and on regular basis, thus said there is a valid necessity for these vehicles to be equipped with a DT tachograph too. Introduction of any additional paper-based documents would only result in a new burden, whereas the presence of the tachograph means that in the cases cited above the DT can simply be switched to in-scope.

#### **3.2. Compatibility and interoperability**

There is no compatibility between the old "analogue" tachograph and the digital tachograph: the analogue system continues to function with paper charts, the digital system uses tachograph smart cards. This side by side of two independent systems may lead to less efficient controls.

On the other hand, Council Regulation (EEC) No 3821/85 foresees strict interoperability criteria for the introduction of new digital tachographs and tachograph cards on the market. That means that new digital equipment has always to be fully interoperable with all the digital tachograph equipment that is already in the field.

However, some adaptations to technical progress of the recording equipment may lead to interoperability problems, and therefore to the necessity to introduce a new generation of recording equipment. In this case, the question arises to what extent a new generation should be compatible with the current digital tachograph generation.

Three options can be envisaged:

**Option 1:** No new generation of recording equipment should be introduced; make full interoperability with the current system of digital tachographs a strict requirement for all future developments.

**Option 2:** Foresee a new generation of recording equipment, but make sure that at least driver cards (or other parts of the equipment) can be used with the current generation of digital tachographs and the new generation of recording equipment (backwards compatibility).

**Option 3:** Foresee a new generation of recording equipment without any requirement on the compatibility.

**Question 8 - Which option do you prefer?**

Of course the most wise approach is option 2, backwards compability.

In case you prefer option 2: What are the most important issues for compatibility between a new generation of tachographs and the current digital tachograph, and what other parts of the equipment, apart from driver cards, should be compatible in your view?

From enforcer's point of view the downlading connectors (out) of the equipments should be the same as long as the download tools used today are capable of communicating with the new generation devices. Obivously compability for the control cards should also be ensured.

#### **4. TYPE APPROVAL**

##### **4.1. Introduction of equipment based on new specifications**

Council Regulation (EEC) No 3821/85 foresees the possibility for the Commission to adapt the annex containing the specifications of the tachograph to technical progress but does not foresee how the changes are introduced in the field. Questions like whether a retrofit in vehicles using older equipment is necessary, or by what type of equipment defective equipment is replaced are not addressed directly in the legislation.

**Question 9 - Should the legislation specify how new equipment has to be introduced in the field?**

Yes, we deem necessary to regulate the introduction in order to prevent problems. Alike it should be explicitely stated that for example the digital should be fitted into a vehicle



currently equipped with an analogue exclusively when the motion sensor, cable and the tachograph head are broken down at the same time.

Should a retrofit be possible, mandatory or take place in case of replacement of defective equipment?

It would be nice to have the retrofit be made mandatory in order speed up the dissemination of the newest equipments.

What are the essential steps for the introduction of new equipment?

For us as an authority backwards compatibility should be ensured from the start, moreover if the introduction consists of several phases clear steps, deadlines should be set as to avoid confusion.

Should type approval for tachographs fall under the general type approval scheme for vehicles?

Currently, the Regulation does not provide for the possibility to carry out field tests of equipment before it is type approved.

**Question 10** - Should it be possible to carry out field tests before type approval is requested, while maintaining the same security standards?

Yes.

How should field test be limited (geographically, number of equipments, duration of the field test, etc.)?

We think number of equipments per test production series should be limited.

#### **4.2. Equipment in relation with the tachograph where no type approval is foreseen**

The current legislation does not provide for detailed requirements in the following fields: seals, downloading equipment, control equipment, calibration tools.

While a legislative approach on this equipment would enhance harmonisation, it has to be evaluated against the administrative obligations that would be created for industry and authorities and the additional efforts needed to keep the respective legislation up to date with technical progress.

The following options could be envisaged:

**Option 1:** Do not change the current situation

**Option 2:** Optional standardisation of this equipment through technical bodies

**Option 3:** Community legislation

**Question 11** - Which option do you prefer and if you prefer option 2 or 3, for which parts: seals, downloading equipment, control equipment, calibration tools, etc.?

In our opinion option 3 is to be retained especially for seals, control equipment (including analysis applications) and calibration tools.

#### **4.3. Adaptation to technical progress**

Council Regulation (EEC) No 3821/85 gives the Commission the competence to update the annexes containing the technical requirements of the tachograph to technical progress. This has to be done through a comitology procedure, involving Member States and Parliament. However, the procedure is time-consuming and administratively intensive.

The following options could be envisaged:

**Option 1:** Commission continues to update the technical specifications of the equipment through comitology

**Option 2:** The Regulation sets essential requirements for the equipment and a normative or technical body (e.g. CEN, CENELEC) is empowered to take care of the detailed technical specifications

**Option 3:** The Regulation sets the basic principles for the equipment and manufacturers decide on detailed technical specifications

**Question 12** - Is the current way of updating the specifications on the tachograph satisfying? Who should be responsible for the updating of the technical requirements? What is your preferred option?

No, the procedure could be improved by adopting option 3 leaving the responsibility to MS experts as well as calling for manufacturer's long standing experience in the field.

#### **5. INSTALLATION AND INSPECTION**

Workshops are important part of the tachograph system, as they are responsible for the installation and repair of equipment and in particular also for the calibration of the tachograph. However, the current legislation contains only very basic provisions on workshops, for example that Member States have to approve workshops, but without saying on what criteria workshops have to be approved. This may lead to very different handling in the different Member States. It has to be remembered that for the security of the tachograph, trustworthy workshops are critical.

**Question 13** - Should the trustworthiness of workshops be improved? If so, how? How can conflicts of interest be avoided for workshops that are living from delivering services to individual clients but play at the same time an important role in the security of the recording equipment?

Definitely, we recommend to impose the production of printouts containing all events and faults before calibration is taking place. Any discovered suspicious element should be documented within the installation protocol. Additional controls on vehicles right off the workshops should be conducted, since the conflict of interest can unfortunately persuade some workshops not to indicate detected cases in the documents.

## **6. USE OF EQUIPMENT**

### **6.1. Automatic and manual recording of information**

The recording equipment automatically records the periods during which the vehicle is moving as "driving time" as well as odometer values and the speed of the vehicle.

Regulation (EC) No 561/2006 stipulates that driver has also to record periods of "other work" and "availability". Council Regulation (EEC) No 3821/85 stipulates that periods of daily rest and breaks have to be recorded manually when the driver was unable to use the equipment as a result of being away from the vehicle. However, there is currently no obligation to record manually weekly rest periods.

Concerning the location, the legislation requires drivers only to record the country in which he or she begins and ends his or her daily work period.

**Question 14** - What kind of data should be entered manually by the driver?

Weekly rest would be welcome as a new manual entry obligation.

What kind of information should be recorded automatically by the recording equipment? Is it appropriate to record more precisely the location (via GPS or GNSS for example)?

Recording more precise data about location would be helpful if the unit is already integrated with a GPS for 2<sup>nd</sup> motion source.

### **6.2. Uniqueness of the driver card**

For the use of the digital tachograph, a driver needs to possess his own personalised driver card. The uniqueness of this driver card is extremely important to ensure compliance with the provisions on driving time and rest periods. The exchange of information between countries on driver cards that have been issued is therefore crucial. In order to minimise administrative burden, this exchange should be done electronically and in an automated way. Currently, there is no such obligation to exchange information in the legal body of the Regulation.

**Question 15** - Should the Regulation explicitly foresee the use of electronic data exchange on cards that are issued between card issuing authorities?

In addition to the current situation, when electronic exchange in itself is already provided for (1266/2009 EC COM reg) the inclusion of the automated way as specific method is something we can only support and further to embed of course the basic obligation in the body of the recast too.

### **6.3. Warnings**

The digital tachograph warns the driver 15 minutes before and at the time of exceeding the continuous driving time. This signal might be a help for drivers to comply with the legislation. However, changes in the legislation might lead to situations where the signal becomes misleading because of the difficulty to update equipment already in use.

**Question 16** - Should the Regulation explicitly foresee warnings for the driver in order to enhance compliance with the legislation on driving times and rest periods? Should it be up

to manufacturers' choice to offer such warnings as an optional tool, including additional warnings for other aspects than the continuous driving time?

We would advise the COM to look at the result of the ISOR project and consider 2 steps warnings and offer the flexibility of options to manufacturers without prejudice to the 'essential warnings'.

## **7. OTHER QUESTIONS**

**Question 17** - Do you have any other comments or suggestions which you consider should be taken into account during the revision of the European legislation on recording equipment?

**Question 18** - Would you like to propose other measures to make the recording equipment more user-friendly and to improve the reliability of controls?

Certain pictograms could better refer to the events/activities there are destined to represent.

***Thank you for your cooperation***

**Should you have any question as regards the contents please contact:**

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