IRU POSITION ON PRACTICAL AND TECHNICAL PROBLEMS CONCERNING THE DIGITAL TACHOGRAPH

IRU Position concerning practical and technical issues related to the digital tachograph.

I.   ANALYSIS

1.   Background

Since the 1 May 2006 when the digital tachograph became compulsory within the EU in all new vehicles covered by the Driving and Rest Time Rules Regulation (561/2006/EC), numerous problems connected to its technical specifications and its practical usage have been identified by transport operators and national associations.

The Commission, EU enforcement officers and digital tachograph manufacturers acknowledge this to be the case. On the 21 December 2006 the European Commission granted a project to the Swedish Road Administration (SRA) to carry out work to 'support, maintain and improve the digital tachograph'. This will involve addressing technical shortcomings in the technical specifications for the device (annex 1B of Regulation 3821/85/EC), problems in the Regulation and user needs. The IRU's full involvement has been requested in helping to define how the device and its accompanying legislation should be updated in light of current experience and practical problems with the device. This position paper aims to establish a list of these problems which the IRU must attempt to rectify through this project and any other means available.

2.   Technical and Practical Problems

A detailed examination of the issues listed below as well as proposed solutions are contained in annex I, which is an integral part of this position paper.

The following points must be resolved or implemented:

– **Recording of Data:** The calculation of driving time which the digital tachograph registers in full minutes rather than by the second as well as the overwriting of driver card data if more than 93 activity changes are recorded.

– **Malfunctioning or Unusable Driver cards:** Regulatory safeguards and technical solutions to deal with malfunctioning driver cards or those which become trapped in the digital tachograph**.**

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- **The impossibility of registering break on a moving vehicle:** It is important that the device allows drivers to record periods of time spent being driven during a double manned operation as break.

- **Downloading and transmission of data:** Transmission speeds for downloading data are extremely poor. A quarterly download of a vehicle unit takes 15 to 20 minutes. When repeating this operation on a fleet of trucks the slowness of the down load becomes both time consuming and therefore expensive. Drivers who operate remotely from their employers, and who only rarely or never return to their bases also need an efficient way to transmit driver card data to their employers. Finally the download tools and processing software available on the market are not subject to model certification and therefore could be subject to variations in quality.

- **Interface with other vehicle units:** The current digital tachograph lacks a common interface with other on–board units which are increasingly commonplace in the latest vehicles.

- **Administration of the system by Member States:** Some Member States still lack adequate administrative systems leading to card issuing and workshop calibration delays for companies and drivers.

- **Enforcement and Sanctioning:** IRU members throughout the EU report the award of disproportionate and varying levels of fines for offences concerning the digital tachograph. In one case a transport operator was fined €4601 in Spain because he had no spare roll of paper for the digital tachograph. EU enforcement officers are also inadequately equipped to carry out controls on digital tachographs efficiently.

- **User convenience:** The device is placed too high up in the cab which makes it easy to forget to change the recording activity. The inability of the device to switch to 'out of scope' driving is also problematic.

II.   IRU POSITION

- The European authorities must recognise that for road transport operators technical and practical problems linked to the use of the digital tachograph have resulted in excessive new administrative burdens, reduced driver flexibility and unexpected additional costs.

- Solutions are needed relating to: the recording of driving time, the overwriting of driver card data, malfunctioning or unusable driver cards, slow download times, impractical data transmission possibilities, the absence of an interface with other vehicle systems, card issuing problems and workshop capacity, poorly equipped enforcement officers, disproportionate sanctions, the tachograph's position in the cab and the inability to switch to out of scope driving.

- The technical specifications for the digital tachograph contained in Annex 1B of Regulation 3821/85 and certain aspects of the Regulation itself must be revised in order to resolve some of these problems. Others may need to be solved with enforcement authorities or vehicle and tachograph manufacturers.

- In the interim technical and / or legal measures must immediately be put in place by the European Commission with Member States to solve these problems.

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Technical Annex of Problems Connected to the Operation and Practical use of the Digital Tachograph

I.   RECORDING OF DATA

1.   Calculation of driving time

−   The digital tachograph records driving time by the minute. Thus, when any driving takes place even for only 2 seconds during any one minute it is still counted as a full minute's driving.

−   In this sense the new device is less accurate than the analogue tachograph which registered driving time precisely by the second.

−   This is a particular problem for express or city delivery services where frequent drop-offs may produce many 'rounded up driving minutes'. In the course of a day, one express delivery driver noted an almost 3,5 hour difference between what the new device recorded and what the analogue tachograph would have shown. This represents a major discrepancy impacting severely on available driving time and, in some cases salary.

−   For example, if a driver made 30 stops exactly on the minute as opposed to a few seconds after he could have an extra 30 minutes driving time available that day.

−   In order to prevent unintentional infringements it is vital that the driver can see total daily driving time (not currently possible) on the digital tachograph display to make sure he stays under the 10 hours daily driving limit.

A cost effective and practical solution should be found so that the digital tachograph registers driving time in a similar way to the analogue tachograph, without the serious loss of productivity which is evident with the current device. Moreover the technical specification should also be changed to enable an on-screen display of daily driving time

2.   Over-writing of driver card data

−   According to the Annex 1B specifications, the driver's card can store data from 28 days worth of driving. However activities within this period are recorded within a data block which can register only 93 changes in the tachograph.

−   In certain sectors where frequent stops or changes in activity such as city deliveries occur, these 93 changes can be easily used up before the end of the 28 days.

−   In these circumstances the earliest recorded data on the card will be overwritten and lost without any warning being given to the driver.

−   This poses a problem for legal compliance because in the event of a check the driver may not have in his possession all required records of his activities.

The data storage capacity of the driver card must be maximised to ensure that the driver can always observe the statutory requirement for record keeping. The specification should also be altered so that a driver can receive a warning if the card has reached the limit of its memory and is about to start overwriting existing data.

3.   Registration of break taken in a moving vehicle

The digital tachograph does not permit an inactive driver to record any time spent in a moving vehicle as break.

A solution should be found so that a driver making use of the possibility to take a break on board a moving double manned vehicle has the option of recording this time as break on the device.

II.   MALFUNCTIONING OR UNUSABLE DRIVER CARDS

1.   Trapped driver cards

–   In the event of a breakdown of the electricity system there is no way to eject the driver card that has been inserted. In such a situation the driver would be unable to drive any other digital tachograph equipped vehicle until the digital tachograph unit is repaired and the card is retrieved. The Regulation allows drivers to continue driving without a card for seven days if it is reported as 'lost or stolen'. However there is no provision for a 'trapped card' so the situation above is a real problem.

A means to manually eject the driver card should be required in the new technical specification or the Regulation should be amended to allow drivers to continue to drive for seven days if a driver card is 'trapped'.

2.   Malfunctioning driver cards

–   If there is a failure in the digital tachograph unit one can get a certificate from a workshop to prove that it is not possible to comply with mandatory downloading requirements. This provides protection for operators in the Regulation. But no similar safeguard for a malfunctioning driver cards exists.

The Regulation should provide a means for driver cards to be certified as malfunctioning.

III.   DOWNLOADING AND TRANSMISSION OF DATA AND INTERFACE WITH OTHER ON-BOARD UNITS

1.   Download of the vehicle unit

–   According to the Digital Tachograph Regulation the digital tachograph unit must be downloaded regularly. This can be a very time consuming and expensive exercise because of the out dated technology which the Regulation's technical annex specifies must be used.

–   The maximum transmission speed limits the speed at which the data can be read from the device. Due to the specifications, a quarterly data download should take approximately 15 to 20 minutes. This is because the download speed is limited by the use of an RS232 COM port, which means it will take approximately a quarter of an hour to download 100kB.

–   The transmission speeds currently achieved with peripheral devices, such as a USB stick, are hundreds of times faster. The current transmission speed of the digital tachograph is therefore very substandard.

–   Substandard transmission for downloading results in time consuming and therefore expensive administrative work for companies, especially where large fleets are involved. This is particularly unsatisfactory when one of the principal 'selling points' for the digital tachograph was its ability to enable more efficient handling of data on driving and rest time rules.

The technical specification should be changed to enable faster transmission speeds for downloading.

2.   Non-Standardised download devices and software

− A wide range of download devices and processing software are available on the market and because there is no model certification for such products their quality is potentially subject to wide variation.

− Transport undertakings are held responsible by the Regulation for maintaining accurate records of driving and rest time data for up to one year. Any inaccuracies or omissions in data that must be presented to the competent authorities may result in undertakings being found in infringement of the Regulation.

Quality control standards should be introduced to ensure that substandard download, analysis and processing tools do not find their way onto the market.

3. **Driver card downloading and transmission from remote locations**

− Companies regularly employ drivers who rarely or never visit their head office and in these circumstances often post analogue tachograph charts to the main office. This will no longer be possible with the digital tachograph because a driver's card is personal to the driver and cannot be sent to the office as the driver would then be without his card and unable to carry out his duties.

− In the short term one commercial solution has been developed whereby drivers can use a so called 'digital tachograph post box' installed at remote locations and enabling the driver to swipe his card and transmit the data to a head office.

− However the optimum solution is clearly to make transmission of data possible directly from the digital tachograph unit itself.

Secure wireless technology using a GPRS, GMS (data) or satellite system should be made possible so that remotely located drivers can - as required by the EU Regulation and national legislation - transmit data from both the unit and driver card to their main office. It would be preferable for the download and transmission of the data stored on the tachograph unit itself to be made accessible without the use of a company card.

4. **Interface with other on-board units**

− The digital tachograph lacks the facility of a single interface for connection to other on board units (i.e. fleet management, road tolling, etc.).

− Moreover, an interface with the vehicle's main on-board unit could prove invaluable as a tool for transmitting data from remote locations or indeed from vehicles at base to the company computers.

A new technical specification should allow an open architecture system enabling the tachograph to be connected with other on board equipment.

IV. **ADMINISTRATION OF THE SYSTEM BY MEMBER STATES**

1. **Card issuing delays**

− While guidelines have been issued for the replacement of lost or stolen cards no specific requirements have been specified in the Regulation regarding the initial issue of cards.

− However, guidelines are needed because card issuing periods and delays vary greatly between Member States presenting considerable inconvenience to drivers and companies.

− Significant problems of this kind have been reported in Spain.

− Late card issuing has caused problems throughout the EU. In the Netherlands while card issuing normally takes place within 3 to 4 weeks, it has been known to take up to 4 months.

− In Belgium card issuing can take place within 10 working days.

EU Rules should require each member state to issue cards within a set maximum period. If this period is exceeded drivers should benefit from the derogation provided by article 26.4 of the Driving and Rest Time Rules Regulation. This details alternative means of recording driving and rest times 'where a driver card is damaged, malfunctions, or is not in the possession of the driver.'

2. Insufficient Workshop Capacity

– Member States have an obligation to approve digital tachograph workshops for the calibration and repair of digital tachographs.

– However, in some EU member States there is insufficient approved workshop capacity.

– In Italy the problem has been compounded by legal action that has been taken against the Italian Government's rules for the training of workshop fitters which has in turn led to a serious shortage of fully operational workshops.

Member States are required to ensure the proper functioning of approved workshops which underpin the digital tachograph system. The Commission must constantly assess whether Member States have sufficient workshop capacity to meet market demand and take action where required.

V. ENFORCEMENT AND SANCTIONING

1. Disproportionate Fines

– Members have reported operators receiving widely varying penalties from enforcement officers that are also disproportionate in relation to the offence committed. It has been reported that a driver in Spain was fined €4601 because he had no spare roll of paper for the digital tachograph.

A categorisation of offences and setting of maximum levels for fines across the EU should be established by Member States, enforcement bodies and the transport sector.

2. Inadequately equipped enforcement officers

– Despite the requirement for control officers to be properly prepared for the digital tachograph, this is not uniformly the case. Control officers in different Member States are not properly equipped with tachograph and driver card reading devices to carry out efficient controls. The alternative of relying on paper print outs for control purposes is time consuming and expensive for the transport operator who loses time and also the cost of the paper print outs.

A complete inventory of equipment necessary for the efficient execution of controls should be specified and rigorously enforced.

3. Number of paper rolls to be carried

– As indicated above operators have been fined for carrying 'insufficient paper' for digital tachograph print outs. This situation is exacerbated by the fact - also described above - that when enforcement officers are not properly equipped they rely on paper print outs for control purposes.

The number of rolls to be carried on board at any one time should be specified. The quantity should not be determined by the fact that enforcement officers in many countries rely on print outs for checks. Rolls should be made available at petrol stations but enforcement officers should carry with then sufficient quantities themselves when they lack the necessary control equipment.

VI. USER CONVENIENCE

1. Position in the cab

– The digital tachograph's position in the cab is too high up. This makes it easy for the driver to forget to change the recording activity.

The device should be placed more conveniently above or below the radio. This issue should be taken up with vehicle manufacturers.

2. Warnings for out of scope driving

– Some vehicles and drivers may alternate between work that is both within and outside the scope of the Regulation. This will also affect the obligation to use a digital tachograph.

– However, a driver in charge of a digital tachograph equipped vehicle will still receive audible warnings even if he is driving outside the scope of the Regulation. This is both an irritation and potentially a dangerous flaw in the device.

The digital tachograph should include the facility to switch to out of scope driving.