RESOLUTION NO. 93/4 ON LORRIES AND ROAD TRAFFIC SAFETY

[CEMT/CM(93)4/FINAL]

The Council of Ministers of ECMT, meeting in Noordwijk, on 26th and 27th May 1993:

HAVING REGARD to the Report CEMT/CM(93)3 on "Lorries and Road Traffic Safety";

CONSIDERING that the improvement of road safety is a key factor in any Europe-wide transport policy;

ACKNOWLEDGING the growth of international goods transport and the major share accounted for by road haulage;

NOTING that only an integrated and diversified road safety policy incorporating all components – driver, vehicle, infrastructure, training, regulations, monitoring, penalties, communication – can ensure that traffic flows under optimum conditions of fluidity and safety;

RECOMMENDS THAT MEMBER COUNTRIES:

Statistics

1. Improve the compilation of statistics on the composition, volume and classification of lorry traffic with a view to establishing what concrete measures should be taken.

2. Harmonise accident statistics for the purpose of international comparison.

Driver training

3. Ensure that the drivers of the largest lorries are persons of a certain maturity. This requirement could be met through the fixing of a minimum age (21 years, for example), or through professional experience gained or the relevant professional training (apprenticeships).

4. Introduce, or continue to require, a thorough medical examination before granting a driving permit and also promote regular check-ups during the period of validity of the permit.

5. Harmonise the conditions of access to the profession with regard to prior training and the issuing of driving permits.

6. Develop suitable occupational training and ensure that the practice of further and continuing training becomes more common by involving haulage firms and hauliers' federations and unions.

Vehicle technical equipment

7. Promote greater use of safety devices such as speed limitors and those that improve the driver's field of vision and vehicle visibility.

8. Promote research in this sphere and with respect to in-vehicle communication between drivers and the traffic management authorities.

Infrastructure

9. Develop road infrastructure for use by lorries in the light of their requirements and specifications, as well as equipment and materials (guardrails, porous surfacings, etc.) which will reduce problems arising from the co-existence of car and lorry traffic.

10. Develop ancillary infrastructure (rest and parking areas) to improve the physical comfort of lorry drivers and thereby create safer conditions.

11. Consider, for safety reasons, the opportunity of using the freight transport capacities provided by the existing rail and inland waterways infrastructures in a more efficient way.

Regulations

12. Harmonise the criteria for restrictions on lorry traffic and limit exemptions.

13. Consider the harmonisation of all rules of behaviour, as well as driving and rest periods on the basis of common definitions of the terms "driving" and "rest"[1].

Monitoring and penalties

14. Provide the necessary material and human resources to ensure optimum effectiveness of monitoring and diversify checks on the road or on hauliers' premises, notably with regard to compliance with social regulations.

15. Extend liability to persons issuing instructions when infringements occur.

16. Develop mutual assistance in legal matters and increase co-operation among countries in order to recognise and enforce suspensions internationally.

Communication and information

17. Promote exchanges of information between countries on traffic conditions and safety and emergency equipment and systems which lorry drivers may find when driving internationally.

1. Germany and the United Kingdom entered a reservation on this item, pointing out that it infringed the principle of subsidiarity as defined in the European Communities.

18. Promote a climate of road safety within haulage firms with the participation of hauliers' organisations and federations.

19. Promote any preventive measures or information campaigns, which specifically address matters relating to lorries.

INSTRUCTS THE COMMITTEE OF DEPUTIES to follow up the implementation of this Resolution and report back in due course.

REPORT ON LORRIES AND ROAD TRAFFIC SAFETY

[CEMT/CM(93)3]

When the Road Safety Committee's programme of work was under consideration, attention was drawn to the fact that the question of lorries and traffic accidents had never been on the Conference's agenda, despite its evident and growing importance in the context of the creation of a free market for road haulage in the EEC and the opening of borders in Eastern Europe. Given the implications of this matter in terms of both road safety and policy making, the Committee decided that a comprehensive report should be drawn up in this connection.

A questionnaire was therefore drafted and sent to all ECMT Member countries in mid-1991. The large number of replies showed how important the various countries consider this subject to be. The following delegations helped draft the report on the basis of the replies:

- Delegations for Austria and Germany:
  Chapter I, "Introduction and statistics".

- The Delegation for Luxembourg:
  Chapters II and VII, "Driver training and terms of employment" and "Road Safety campaigns concerning lorries".

- The Delegation for France:
  Chapters III and V, "The vehicle's technical systems" and "Regulation";

- The Delegation for Switzerland:
  Chapters IV and VI, "Road infrastructure and safety" and "Monitoring and penalties".

The Delegations subsequently met to co-ordinate the plans for the various chapters and prepare a draft Resolution that was approved by the Committee at its March 1993 meeting.

CHAPTER I

INTRODUCTION AND STATISTICS

1. Introduction

The lorry has taken an extremely important place in domestic and international goods transport. The reasons for this are, for example, its optimum adaptability to the purpose of the journey, the possibilities of door-to-door transport and the relatively low transport costs for the user. ECMT statistics show that road haulage accounts for about 60 to 65% of the total goods tonnage carried in most countries; rail's share is usually less than 10%. However, the average length of hauls by rail is much greater than by road. Where they exist, waterways can be a less expensive and more environmentally friendly alternative for specific goods. Further marked increases in road haulage can, however, be expected as a result of new developments in international goods traffic with the creation of the European Economic Area and the opening-up of Eastern Europe.

According to OECD data, about 16 million lorries are in service in Europe. Lorries account for about 8 to 10% of the road vehicle population and for about 15% of road vehicle-kms. In the last 10 years, the volume of traffic has risen on average by 40 to 60%, but the growth rates have been much higher on certain routes.

Any assessment of risks associated with lorry traffic has to differentiate between risks connected with drivers, risks involving the vehicle fleet (technical condition) and risks concerning traffic conditions, such as the type of infrastructure. To date, efforts at the national and international level have focused almost exclusively on driver training and improving vehicle technology. Since only a few co-ordinated measures have been taken so far to influence traffic conditions, there is still much room for improvement. The measures to be taken in this area require increased international co-operation. Under no circumstances can the risks associated with lorries be seen independently of the economic context, that is to say the increase in traffic generated by economic activity. Risks also vary with the type of goods carried and can sometimes be quite high.

Measures to improve safety for drivers can be implemented only if basic labour regulations are observed at the same. The increasing pressure of competition and the race against the clock in transport activities lead to difficult working conditions for drivers that can result in excessive driving times and fatigue. Drivers may break speed limits in order to meet delivery lead times.

Lorry weights range from 3.5 to over 40 tonnes. The weights of the heaviest vehicles are still rising since they are connected with higher payloads. The mix of various kinds of vehicles is the general problem affecting a safe flow of traffic. Bicycles, private cars, lorries and buses have to share the same road space. Compared with private cars, lorry weights may be at least 40 times higher. Some authors of scientific reports have compared lorries and other vehicles in terms of the road wear resulting from

weight and shape. Differences in speed compared with car traffic, which on many kinds of roads can reach 50 km/hour or more, create further risks. This results in serious problems concerning the passive safety of lorries. With regard to their active safety, great progress has been made with suspension and braking systems (pneumatic suspension, ABS, disk brakes). Major problems still exist with load securing – essentially owing to the very high and unstable position of the centre of gravity – especially when lorries are travelling at high speeds.

When road dimensions are planned, the largest vehicles, i.e. lorries, are used as a basis for the choice of road widths, curve radii and the design of gradients with special dimensions. The data available for lorry traffic are, however, inadequate, as is also noted by OECD in international comparisons. Data are provided by quite different types of organisations and are not homogeneous. Since the resources for new road infrastructure in highly developed countries are extremely limited, the possibilities for an internationally successful traffic management system lie in the control of existing traffic on the present road network. For this purpose, current data and the appropriate information technology are required to enable countries to exchange data. This is especially important in view of the expected growth in road traffic after the creation of the European Economic Area. For safety reasons, the use of rail network and existing waterway capacity in goods transport is also to be encouraged, since rail and waterways are clearly much safer than road transport. A co-operative strategy like the one being developed in several countries, particularly the Alpine region – as in the German transport plan for the 1990s or the integrated traffic concept of Austria and Switzerland – can bring about improvements over the longer term.

2. Lorry accident statistics

The main problem in international statistical comparisons, whatever form they may take, is that the basic data are not homogeneous – starting with the definition of lorries, which in some cases also includes vehicles of under 3.5 tonnes. The definitions for vehicle categories such as tractor vehicles, buses and special vehicles also differ. Homogeneity is also lacking in the reporting of casualties. Some countries refer only to the casualties among lorry occupants, although the other casualties in an accident (mostly private car occupants) are much higher.

The accident statistics are based on ECMT questionnaires and OECD data. Detailed accident analyses for goods traffic have been provided by France, Germany, Switzerland and Austria.

The comparable data given in the following tables derives from an analysis of eight countries and reveals that on average lorries are involved in 8.1% of road accidents. The values range between 5.5% and 10% depending on the country. Accident probabilities are usually lower than for private cars, depending on the type of road, although the seriousness of accidents owing to the previously mentioned difference in weights between the two kinds of vehicles is particularly striking. The risk of being seriously injured or killed is four times higher for the car occupants than for the lorry occupants in car/lorry accidents. On average, accidents involving lorries account for 15.3% of total fatalities.

French, German and Austrian data show that the risk of accidents causing casualties is particularly high outside urban areas or on motorways. In France, 23 fatalities per 100 lorry accidents are recorded in non-urban areas. On Austrian motorways, lorries are involved in 27% of accidents with fatalities and seriously injured persons. Lorries are involved roughly twice as often in fatal accidents as private cars for the same number of kilometres covered on German motorways. The very serious nature of the accidents is attributable to the weight and speed differences between private cars and lorries and to the weight/speed ratio.

The number of lorry accidents has remained steady or has risen over the years in most countries. One exception is Denmark, with a 25% decrease between 1985 and 1989; nonetheless, the seriousness of accidents increased over this period.

The classification of lorry accidents shows that fewer are caused by driver error and drink-driving offences than in the case of private cars. Accidents due to over-tiredness or rear-end collisions are more common. Two or more drivers are usually involved in lorry accidents, the other vehicles concerned being mostly private cars. According to French data, fewer lorries are involved in accidents at intersections. In Germany, a particularly high proportion of lorry accidents occur at night on motorways. The seriousness of multi-vehicle accidents involving lorries is also particularly high on German motorways. Although lorries are involved in about a third of these pile-ups they account for about two-thirds of fatalities and half the seriously injured. According to police reports, goods lorry drivers are responsible to a very large extent for rear-end collisions on German motorways. This fact must be related to the limited braking power of lorries compared with private cars. Fatality rates (probability of being killed in a traffic accident) for private car/lorry collisions and car/car collisions are provided by another German data source. When lorries are involved, the fatality rates for head-on collisions are six times higher, 15 times higher for lateral collisions and even 80 times higher for rear-end collisions.

One type of lorry accident is particularly common in built-up areas. When turning right, lorry drivers, unable to see two-wheelers to the right of their vehicles, run over them. Such accidents are nearly always fatal. Lorries parked in built-up areas and not properly lit, often because their reflectors are dirty or the street lighting is poor, are also a serious hazard.

Accidents involving lorries carrying hazardous goods are in a special category since they have a particularly high damage potential, i.e. their consequences are even more serious than in the case of ordinary goods lorries. Since transport operations of this kind are proportionally small, it is impossible to be precise about the actual risk. In addition to the theoretical definition of potential damage, the need is arising in this area for an international exchange of data on transport activity and on the circumstances and consequences of accidents. Accurate knowledge of current transport operations (which transport operation is taking place on which road section) is required if the impact of such accidents is to be reduced. The aim should be to set up an international data exchange network on the safety and emergency equipment and systems which lorry drivers may find when driving internationally.

Replies to the questionnaire ECMT – Lorry accidents (1989 figures)

Country	General data					Special data: accidents involving lorries and injured persons														
						Injured persons involved														
	Accident (causing injury)	Injured persons involved			Accidents (causing injury)	In freight vehicle			In private cars			Moto two wheelers			On bicycles			Pedestrians		
		Fatal	Serious	Slight		Fatal	Serious	Slight	Fatal	Serious	Slight	Fatal	Serious	Slight	Fatal	Serious	Slight	Fatal	Serious	Slight
A	46 565	1 402	20 699	39 924	4 723	33	491	997	145	1 144	2 223	34	224	315	13	121	184	37	203	255
B(t)	62 982	1 993	18 308	68 368	4 765	61	444	2 145	1 187	10 090	44 147	212	3 268	9 952	197	1 826	6 130	292	1 782	4 254
CH	31 084	925	11 939	18 220	4 255	7	43	117	41	191	351	19	96	81	12	33	29	11	41	27
D(1)	343 604	7 995	107 848	341 549	30 457	137	1 842	6 255	483	3 501	18 690	9 897	617	990	106	727	1 492	122	582	740
DK	9 922	670	7 266	4 379	753	9	50	38	71	252	162	18	**56**	11	22	75	27	18	21	12
E(2)	109 804	7 188	52 418	116 993	6 539	199	680	1 551	758	1 957	3 377	99	253	262	16	22	39	III	160	122
F	170 590	10 528	55 086	180 913	10 840	180	678	2 024	1 152	2 596	6 457	156	429	730	56	129	200	150	226	324
GB (1)	253 969	5 230	61 903	266 142	14 775	73	719	2 878	460	2 443	8 348	89	404	673	38	219	**517**	181	474	876
IRL (I)	6 075	460		8 170	990	21	233	394	31		803	13		82	**14**		78		–	–
N	8 494	381	1 661	9 829	672	4	20	135	49	67	483	4	10	29	2	4	15	Il	19	32
NL	44 061	1 456	13 660	36 638	6 164	52	368	1 074	127	601	1 215	50	332	832	86	346	702	31	105	171

1. Data on heavy vehicles for 1988.
2. [<3.5 tonnes] + [>3.5 tonnes].

CHAPTER II

DRIVER TRAINING AND TERMS OF EMPLOYMENT

1. Introduction

Training is to be taken to mean the preparation for the profession of driver of goods vehicles. Such training comprises preparation for the category C driving permit and any sub-categories with or without trailers, for the certificate required to drive dangerous goods vehicles (ADR), continuous and retraining and any compulsory or elective training to improve the capacities, skills and knowledge of lorry drivers.

This chapter examines ways of improving lorry traffic safety by means of better driver training and also by taking account of drivers' terms of employment: the latter's impact on safety is considerable, warranting examination alongside other aspects more directly related to safety.

2. Driver training

Driver training plays a decisive role in safety, perhaps even more so than road infrastructure, vehicle technical regulations and regulations governing drivers and the entire road haulage sector.

Lorry driver training, one of whose mandatory components is the obtaining of a category C driver's permit or one appropriate to the type of vehicle, is available in all ECMT countries in one of three ways.

Special schooling

Training is provided for students aged 14 or 15 at schools in partnership with hauliers over a period of three to four years, or at vocational training centres.

A diploma is awarded upon completion of the training, which covers actual driving along with other areas related to the profession: social regulations, mechanical skills, etc.

In Switzerland, for example, 10% of drivers have attended such centres. In 1989, the Federal Republic of Germany had 420 000 lorry drivers; according to the "Berufbildungszentrum für den Strassenverkehr e. V." (road transport training centre), only 35 000 had had professional training.

Through the army

Conscripts fulfilling national service obligations can take lorry driver training courses and acquire practical experience. Military permits, granted in accordance with procedures comparable to those

applicable to civilian driver's permits can subsequently be converted into civilian permits by a simple administrative formality or after an additional theory exam.

Through direct preparation for the Category C drivers permit

Such training is usually dispensed by driving schools or specialised training schools.

The preparation and examination procedures for Category C permits are governed by specific rules as to age, fitness, and course and examination content.

3. Conditions for obtaining a category C permit

a) The minimum age restriction for Category C permits in ECMT countries ranges between 18 and 21 years. Category C permits are normally needed for professional reasons and are sometimes obtained by persons aged 18 – the minimum age – whereas safety considerations would militate in favour of a greater degree of maturity, and therefore a higher age.

b) Prior possession of a Category B permit

Most countries allow direct access to Category C permits without the need first to possess a normal driver's permit and therefore without any need for previous driving experience. This does not seem very satisfactory, since driving lorries is more difficult and calls for at least some prior driving experience. This anachronistic rule should be repealed in the years to come with the new EEC Directive on driving licences (91/439 of 29 July 1991), which provides that Category C licences may only be issued to drivers already entitled to drive Category B vehicles. Nothing, however, is said as to how long the Category B licence has to have been held.

c) Medical examination

The results of the survey showed that a great majority of ECMT countries require candidates for Category C permits to undergo a prior medical examination to detect any physical or psychological shortcomings incompatible with driving lorries which could be a reason for not granting a permit. This examination is carried out by a doctor or a specialised institute, not by auxiliary medical staff.

However, minimum fitness requirements - good vision, possession of all four limbs, no history of epilepsy, etc. – are not yet sufficiently standard. All countries should require thorough medical examinations at regular intervals, either when the permit is being renewed or at other times specified in national regulations.

Many countries have introduced periodic medical checkups whose procedures and frequencies differ.

The adjectives used to describe medical examinations – "routine" and "thorough" – have not been precisely defined. Regardless, initial medical examinations must be more thorough, and examinations should be required at set intervals to ensure that drivers always meet the minimum fitness requirements, with permit renewal contingent upon a satisfactory check-up.

d) Another question dealt with in the survey is the ***duration of the permit's validity,*** and thus the need for renewal or extenson.

Even if a permit with no expiry date facilitates administrative procedures, it is necessary to take into account changes that occur with advancing years as the physical and psychological fitness in evidence when the licence was obtained diminish. After a certain age, which of course varies from individual to individual, sharpness of vision and hearing as well as reflexes leave much to be desired without being fully compensated by long experience at the wheel.

Most countries use a system of limited validity – either periodic renewal, a subsequent medical check-up or a combination thereof – although there are large differences in respect of expiry dates.

e) Age limit

Some countries have also set an age limit after which Category C permits are no longer issued and the right to drive lorries is suspended. Other countries consider there is no need for an age limit; three countries are of the opinion that permits should not be renewed once the holder has reached the age of 65, 70 and 75 years respectively, taking into account the fact that as of a certain age the permit holder has normally retired and therefore, except for personal reasons and in very rare cases, no longer needs his special C permit.

4. Examinations

The purpose of the examination is to test the theory and practical knowledge and skills needed to drive a lorry safely and to become a professional lorry driver under the best possible conditions.

In particular, drivers must have a general idea of the role of road transport, its organisation and the specific rules applicable, of basic vehicle safety rules and of what to do in the event of an accident. They must also have some basic mechanical knowledge.

The examination is usually divided into two parts, theory and practice; the latter is often broken down into off-road and on-road driving.

Permit categories

A Category C permit is needed in all countries to drive a heavy goods vehicle with a maximum permissible weight of over 3 500 kg (7 700 pounds) in accordance with the provisions of the Vienna Convention on road traffic.

Some countries require a Category E permit to drive articulated lorries, whose total permissible weight is usually high. This permit is also defined in the Vienna Convention.

Training course and driving test content

National provisions in many countries specify the minimum knowledge and skills to be provided during training and tested during the examination. The areas usually covered include:

- The vehicle: drivers must be familiar with regulations and the location, operating principles and, possibly, maintenance of key vehicle components and equipment; they must also be able to identify the most common causes of breakdowns.

- Road transport: drivers must understand the meaning of the various regulatory documents required to drive a lorry and be familiar with the conditions under which they are issued, how they are valid for and how they are used.

- Driver: drivers must recognise factors affecting their physical fitness and the risks associated with lack of experience.

- Users: applicants for Category C permits must be familiar with the specific characteristics of other users (pedestrians, riders of two-wheelers, motorists, etc.) and assess the resultant risks; they must know what to do in the event of an accident or incident.

- Driving: drivers must be able to control their vehicles whatever the driving situation: preparing the route, getting behind the wheel, positioning the vehicle on the road, adjusting speed to normal and special traffic conditions.

Permit test procedures

Quite a few countries set the minimum technical specifications (dimensions, total permissible weight) for examination vehicles used for practical tests for Category C permits to ensure that these vehicles are as representative as possible.

The test duration is set by each country in national regulations, but must be long enough to ensure that the applicant has the requisite knowledge and skills.

There are also considerable differences in the duration of theory exams and practical tests, with most countries according greater importance to the former. The average length of the theory part is 30 minutes, though it may be as long as one hour. An academic discussion on this point would not settle very much, since the national approach in each case depends on the administrative practices and traditions which have evolved in the country in question. It would, however, be helpful to consider whether the practical part of the test should not be given more importance than the theory part.

5. Further training, retraining and terms of employment

In addition to basic training, which culminates in the award of a permit, professional drivers are also able, or even obliged, to undertake further training or retraining, since they have to be able to adapt quickly to the ever-increasing range of transport conditions, increasingly restrictive competition between modes of transport and between haulage firms, changing regulations and an evolving economic climate.

The recent dramatic conflicts in France between the public authorities and professional drivers has highlighted the problems of the profession and drawn attention to the need to find appropriate solutions. The disputes also reaffirmed the social and economic importance of transport in general, and road transport in particular, to national and international economic activities. Lorry drivers demonstrated their determination to obtain changes to their terms of employment. Training was a key demand.

It should be noted that the special training certificate for the transport of dangerous goods (A.D.R.) is in use almost everywhere, something which without doubt represents progress for this type of transport.

To encourage and reward drivers who undergo further training, some companies offer security of employment. In most countries, drivers benefit from a collectively negotiated contract for a set length of time. Job security can have very beneficial effects for drivers and their families and for their social and professional life, enabling them to do their job safely.

6. Conclusions

Although training for lorry drivers has recently improved significantly in many countries, some shortcomings and deficiencies still need to be remedied. This calls for special attention on the part of governments.

Measures that could further improve training include:

- Ensuring that the drivers of the largest lorries are persons of a certain maturity. This requirement could be met through a fixing of a minimum age (of 21 years, for example), or through professional know-how or gained during the relevant training (apprenticeships).

- Continuing to require or introducing a thorough medical examination before granting a driving permit and also requiring regular checkups during the period of validity of the permit.

- Requiring applicants to possess a Category B permit for a set period of time prior to taking the tests for the Category C permit.

- Developing suitable professional training in line with the practice in all other trades and professions.

- Introducing generally further training and retraining.

- Involving and associating haulage firms and hauliers' federations and unions in such training.

- Promoting a social aim to training in the framework of and rewarded by a social programme such as a collective agreement, bonuses, holidays, early retirement, etc.

CHAPTER III

THE VEHICLE'S TECHNICAL SYSTEMS

1. Introduction

Lorries, as vehicles, are essentially covered by international regulations. The technical requirements that have to be met for them to be allowed to participate in international traffic are laid down in the Vienna Convention on road traffic.

The provisions are supplemented by the technical rules laid down by the UN. The Community regulations that will lead to the establishment of a Community system of approval in the next few years will of course have to be in conformity with the terms of the Vienna Convention.

In addition to these technical rules applicable during the manufacture of vehicles, the regulations are designed to establish standards for the weights and dimensions of vehicles and rules for technical inspections.

This chapter will not deal with all these technical rules, even though they are certainly concerned with safety, but will be confined to consideration of the supplementary equipment which has a direct impact on safety.

The questionnaire drawn up to ascertain the regulations in force in the various ECMT Member countries contains a list of supplementary equipment which is not claimed to be exhaustive, especially as it may in future have to include new technological developments which are particularly promising in this field. However, the list does provide a fairly precise picture of what can reasonably be expected in the near future. This list provides the basis for this chapter.

The supplementary technical equipment can be broken down into three categories:

- Ancillary equipment or fittings designed to prevent accidents or reduce their effects by improving the technical performance of vehicles, facilitating the task of drivers, or making the vehicle more readily visible to other road users.

- Equipment facilitating compliance with regulations concerning heavy vehicles and their drivers.

- Equipment designed to keep vehicles roadworthy.

2. Systems designed to reduce the risk and severity of accidents

a) Improved technical specifications of vehicles

Many countries have adopted national provisions with a view to:

Improving the stability of the vehicle and so reducing the risk of overturning

- By more efficient securing of loads.
- In the case of tankers, by establishing compartmentalisation standards in such a way as to reduce the movement of liquids within the tanker which can lead to overturning.
- By fixing a maximum height in proportion to the overall size of the vehicle.

Increasing braking reliability

- By making ABS systems a compulsory requirement, in compliance with Community regulations, which make them mandatory for vehicles weighing 12 or more tonnes, together with anti-skid systems to a lesser extent.
- By laying down specifications for tyres.
- By compulsory requirement of a retarder, which is particularly effective on steep slopes.
- By automatic control of trailer braking power so as to prevent jack-knifing.

Reducing the effects of collisions

- By fitting:
  - At the front, more elastic bumpers and an underrun guard, so as to prevent lower vehicles - cars and two-wheelers – from going under the lorry.
  - At the rear, under run guards, which are to be found on all lorries in most countries.
  - Special side guards, also to prevent other vehicles from running under the lorry.

Work still has to be done with a view to improving structural resistance in the event of collisions.

b) Systems to facilitate driving and reduce the risk of accidents

These primarily relate to:

- Increasing the **driver's field of vision** by requiring two or even three outside rear-view mirrors whose specifications and dimensions increase the field of vision and reduce or eliminate the blind angle.

Not many countries have introduced further provisions with a view to completely eliminating the blind angle, which can cause fatal accidents (see Chapter I). Neither Community provisions nor the

UN/ECE regulations require this, nor do they define the technical specifications precisely. Studies are in hand and the findings are awaited with particular interest as this matter is of considerable concern.

A camera fitted at the rear of the vehicle with a screen on the dashboard to enable the driver to see directly what is happening behind the vehicle, particularly when backing up, is often claimed to be a facility that should be introduced more generally, but so far no country has made it compulsory. Only a few vehicles here and there are equipped with such a system.

- **Installation** of an audible device to warn other road users that the driver is reversing and/or an ultrasound device informing the driver of any obstacle immediately behind his vehicle.

- **Improving the ergonomics** of driving is a major preoccupation and precise regulations are laid down for such matters as the layout and visibility of dashboard instruments and even cab fittings and layout as regards, for example, minimum dimensions, not only for comfortable driving but also for the provision of an appropriate bunk for rest during stops, easy access to the cab, etc. All countries are very concerned about everything to do with improving the comfort of the driver, but much remains to be done.

It should be noted that all lorries are now fitted with power steering, another means of making driving easier.

c) Improving vehicle visibility

Many steps have been taken at national level, in most cases in conformity with Community and international provisions, in order to improve both the night vision of drivers by means of satisfactory lights and also to make the lorries themselves visible at night or when visibility is reduced owing to poor weather conditions.

The purpose of the standards laid down for the power and quality of lights is not simply to the visibility of lorries and draw attention to their presence and movement, but also to give other road users a better idea of their outline and dimensions, and this is also the case for rear plate lighting, retro-reflectors, reversing lights, mandatory rear fog lights, and signing by means of reflecting materials on the sides of the vehicle at the rear.

Finally, the system of marking the sides of lorries with reflecting materials to make them more visible at intersections or when turning should be introduced on a general basis, in particular for very long vehicles.

d) Although not intended to improve vehicle visibility, another useful safety device is anti-spray flaps, which reduce risks related to a loss of visibility for vehicles following or overtaking lorries.

3. Systems to help drivers to comply with regulations

For some years now, vehicles have been fitted with technical devices used to ensure compliance with regulations and facilitate monitoring.

a) Speed governors

A number of countries have made it compulsory for lorries of a certain tonnage to be fitted with speed governors set at a given ceiling.

The European Community has adopted the system for vehicles of over 12 tonnes and set a speed limit of 90 km/h which lorries cannot exceed.

It would be advisable to ensure the general introduction of speed governors on the heaviest vehicles in compliance with Resolution No. 91/5 adopted by the ECMT Ministers in 1991.

b) Tachograph

In almost all countries, every lorry is fitted with a tachograph which continuously records driving and rest periods as well as travelling speeds. These tachographs comply with Community or national standards which validate the data recorded and reduce or even eliminate the possibility of cheating. The requirement that these devices be fitted and used on a general basis is included in ECMT Resolution No. 90/1.

c) Laser or electronic systems

The automotive industry is currently developing radar laser devices that automatically ensure that a minimum safety distance is maintained between vehicles.

These new technologies are of special interest for lorries, frequently involved in rear-end collisions, especially in fog (see Chapter I).

4. Provisions designed to keep vehicles roadworthy

While vehicle design as a whole and the various types of equipment seek to ensure the security of the driver, load and other road users, it is necessary to ensure over time that the essential parts of the vehicle are in sufficiently good condition for it to be roadworthy.

For some years now, Community or national regulations have required that lorries undergo periodic technical inspections to check their roadworthiness. Such inspections are more frequent for lorries than for lighter vehicles.

5. Conclusion

Most of the technical regulations set out above should be in general application since they are covered by Community or even international provisions. Changes will be required in the light of technological developments (such as those taking place in the DRIVE, PROMETHEUS, etc. programmes). It will likewise be necessary to introduce new equipment or further improvements in due course in order to adapt to new traffic conditions and improve the flow of traffic, while at the same time maintaining and increasing the safety and comfort of the driver, since such comfort will in future be essential to safety if nothing else.

CHAPTER IV

ROAD INFRASTRUCTURE AND SAFETY

1. Introduction

In this chapter, the term "road infrastructure" is not to be taken to mean simply matters relating to road construction as such, i.e. surfacing, the geometry and features of alignment, etc., but also all ancillary infrastructure such as service and rest areas, parking areas, freight terminals, and monitoring installations. The use of existing infrastructure and means of managing traffic such as restrictions or bans, co-ordinated traffic light systems and route determination systems will be discussed in Chapter V, "Regulation".

2. Road design, construction and equipment

Specific physical and technical requirements have to be met by roads in order to ensure that lorry traffic flows safely. It is beyond the scope of this report to provide a detailed analysis of the construction specifications and standards for roads used by lorries, and attention will simply be drawn to certain principles and recommendations in the light of the findings of national and international scientific research.

a) Design

- One of the main problems with regard to road infrastructure is that technical specifications for carriageways differ according to whether they are designed to carry cars or lorries. Factors such as dimensions, weight, behaviour during acceleration or braking, the driver's sight line, road holding characteristics and kinetic energy affect road construction. Planners are well aware of these problems. However, the road requirements of the different categories of vehicle are not only simply the same, but in some cases are even incompatible, so it is necessary to find an optimum solution after weighing up these requirements. Such an assessment calls for full information on the different flows of lorry traffic and their specific requirements from the outset of planning. That is the only way that account can be taken of the characteristics of lorries which have the greatest effect on road design and geometry, in particular braking, the rollover threshold, vehicle width and – at intersections and interchanges – the tendency to sway and swerve. Even in this case, however, optimal infrastructure cannot be ensured once and for all insofar as traffic volumes and flows can be modified by control measures or new road infrastructure which may give rise to appreciable increases – higher than initial estimates – in lorry traffic on particular road sections, lead to premature degradation of the surface of the carriageway – creation of ruts for example – and cause accidents. Moreover, it is quite clear that the increase in freight traffic has been underestimated in recent years in most Western

European countries. The determination of more reliable methods and, accordingly, greater precision in traffic forecasts would therefore do a great deal to prevent road accidents.

b) Construction and surfacing of carriageways

- A typical problem arising from the coexistence of light and heavy vehicles is the spraying of water by heavy vehicles, which considerably reduces the field of vision of car drivers. The problem can be alleviated by fitting anti-spray flaps on the vehicle (see Chapter III, "The vehicle's technical systems") and by developing porous pavements (open mixes) to allow surface water to run off quickly. Improved drainage cuts down on spraying, splashing, hydroplaning and dazzle in wet weather, thereby reducing the risk of accidents. Several scientific studies have shown that open mixes should preferably be applied on heavily travelled motorways (more than 35 000 vehicles per day), on sections of road where water poses special problems (viaducts, etc.), and on roads where noise is a particular disamenity, since they reduce and muffle noise whatever the weather.

However, such mixes have their drawbacks (shorter pavement life, higher cost, slightly lower skid resistance in dry weather).

c) Equipment

- The coexistence of heavy and light vehicles also gives rise to accidents in which vehicles run off the road. Lorries that cross the central reserve are often involved in serious accidents. **Guard-rails** are not always equally effective for lorries and cars. Strong guard-rails that check lorries can bounce cars back onto the carriageway, while more flexible guard-rails do not stop lorries. Research involving full-scale tests has been conducted in order to develop guard-rails suitable for both types of vehicle; their use is becoming more widespread. Technical solutions are also being sought to protect lorry drivers from collisions on dangerous corners, engineering structures and sloping banks.

- It is not unusual for lorries to experience problems on steep slopes (greater than 3 or 4%), often because the driver does not brake soon enough or owing to a technical defect a braking system under strain. Drivers trying to stop their headlong rush have only a limited number of options available (braking against a rock wall, leaving the road on an auxiliary lane, preferably with an upwards grade). One solution consists of providing **"emergency stopping lanes"** on steep sections so that runaway vehicles can be stopped in a bed of gravel.

  The approaches to these lanes must be clearly indicated, and drivers should be informed and trained on how to use them.

- Although fires are infrequent in tunnels, their consequence, are very serious, particularly when lorries are involved. Preventive measures must be taken, in particular the installation of fire control and surveillance facilities.

Lastly, the critical points and sections of the network used by large numbers of lorries should be the subject of periodic on-the-spot analyses in order to identify measures to improve the safety and ease the flow of lorry traffic.

3. Ancillary infrastructure

The safety and efficiency of lorry transport are determined not only by physical and technical specifications and road construction standards but also by appropriate ancillary infrastructure. This

section briefly reviews the main ancillary facilities that are important to transport i.e. service and rest areas, parking facilities for lorries and freight terminals.

a) Service and rest areas

Motorway networks in all ECMT Member countries have service areas with petrol stations, restaurants, retail outlets, toilets/washing facilities, telephones and separate parking facilities for lorries, coaches and cars. Rest areas alternate with service areas, and their layout is similar, but without restaurants or petrol stations. The location of service and rest areas is determined by a variety of factors such as the need to fill up at regular intervals, the comfort and safety of road users, and the availability and cost of land. The distance between areas varies from 10 to 60 km depending on the country. In Germany and Belgium for example, stations are located roughly every 25 km, while in the United Kingdom they are located every 50 km, reduced to 20 km on heavily travelled roads. During the design and development of service and rest areas, particular attention should be paid to the safety of vehicle entrances and exits, the security of parked vehicles and the provision of an adequate number of parking spaces, in particular for goods lorries and coaches.

b) Parking places for heavy vehicles

In many countries, special parking places have been reserved in town centres for heavy vehicles, especially at night or at weekends. However, the restrictions on parking of such vehicles would seem to differ considerably from those on private cars, and conditions vary according to the time of day. In the case of lorries, it would seem desirable for reasons of safety and driver comfort to locate the parking places near to the trunk roads being used but a little way from them. The parking places should be served by public transport systems and have payphones and fire extinguishers. They should also be protected against theft.

c) Freight terminals

Freight terminals are special sites reserved for receiving, dispatching, re-directing, storing and transferring of freight. Since such terminals are often designed, built and operated by private enterprises, little data is available on such matters as access, environment, pollution, etc. In any event, safety considerations require that these terminals have adequate access and appropriate geometrical characteristics and surface area bearing capacity, and also be compatible with the environment and existing urban structures.

4. Conclusions

For safety reasons, roads used by lorries must take account of their requirements and specifications such as dimensions, weight, rollover threshold and braking distances. Planners must be thoroughly familiar with the various traffic flows and volumes and develop reliable traffic forecasting methods for this purpose.

In addition, measures implemented during road construction and with regard to road equipment reduce the risk of accidents attributable to the coexistence of lorry and car traffic. Such measures include: the use of porous surfaces to reduce risks associated with water spray; widespread installation of guard-rails suitable for both lorries and cars; construction of emergency stopping lanes, etc. Finally, well-designed and suitable ancillary infrastructure also raises levels of safety and efficiency of goods transport.

CHAPTER V

REGULATION

1. Introduction

The use of the road and the public highway in general is governed by legislation and regulations establishing:

- The conditions for allowing vehicles and persons onto the roads.
- Rules of behaviour with which drivers must comply and regulations on traffic management and the terms of employment of lorry drivers.

Freight transport vehicles, which for convenience we shall call “lorries” in the remainder of this chapter, are subject to the same rules as all other vehicles and drivers, such as the requirement to obey traffic lights, to give just one example.

These common rules are complemented or, in some cases, modified by special regulations to adapt them to the specific characteristics of lorries or the particular conditions in which they operate and their drivers have to work, namely their economic function, the existence of contracts, the professional status of the driver.

A distinction has been made between measures implemented unilaterally by the Member countries and those resulting either from Community provisions or international regulations existing in this connection.

The purpose of this chapter is not to present an exhaustive list of all the rules that apply to lorries, but to indicate only those that have an important impact on road safety in order to identify the measures that remain to be taken, harmonized or extended to all ECMT Member countries.

The conditions for allowing vehicles and persons onto the roads are as a rule related to the technical specifications for vehicles, registration regulations, and the conditions under which permits are issued or those on becoming a professional lorry driver, which are discussed in other chapters of this report and are not therefore considered here.

2. Traffic regulations

The regulations in force in Member countries may be broken down into rules of behaviour, traffic management measures and social regulations governing the professional activities of lorry drivers.

a) Rules of behaviour

In general, the rules of behaviour are of course consistent with the provisions laid down in the international conventions on traffic rules, called the Vienna Conventions.

- Speed limits

In all countries, lorries are subject to upper speed limits, which differ according to the type of road network and the maximum permissible weight of vehicles. They are generally lower than those for private vehicles.

However, differences are found in the limits for the same type of road and the same class of vehicle in the various countries; for example, the limit varies from 70 km/h to 100 km/h on motorways, with the majority of countries having opted for maximum speeds of 80 or 90 km/h.

In built-up areas, the speed limit is the same for all classes of vehicle without exception, i.e. 50 km/h. In some countries, however, a lower limit of 40 km/h is imposed on vehicles carrying hazardous goods.

Although the disparity in speed limits between countries can be explained in some cases by differences in topography and infrastructure, it is complicated by the introduction of weight-related limits. However, it should be noted that the regulations are incorporated in each country into a set of rules applicable to goods transport that have been in force for a long time, drawn up at a time when harmonisation of rules, with the exception of that stemming from the application of international conventions, was not a priority.

While no one questions the benefits of speed limits or their positive impact on safety in the case of lorries, complex regulations and the differences in speed limits do not facilitate compliance with regulations, still less their monitoring, particularly with the current expansion of international goods transport.

If speed limits were harmonized with reference to vehicle specifications and road categories that are clearly identified and recognised by all – and if the regulations were simplified at the same time – there would be greater compliance with the limits and, accordingly, more safety on the roads.

A few countries – in fact only the former Czechoslovakia and France – have also introduced requirement for lorries to be fitted with speed governors that physically prevent them from exceeding a certain speed.

This requirement, together with technical specifications for the speed governors set out in Directive 92/6 CEE of 10 February 1992, will apply to all vehicles of more than 12 tonnes registered in EC Member states on or after 1 January 1995. Other ECMT Member countries, such as Austria, will bring in identical national provisions.

This extension to all ECMT Member countries, based on identical weight and speed limit criteria, would improve safety by bringing speeds down, be a further step toward the harmonization of speed limits, and encourage the technological development of tamper-proof devices built-in at the vehicle design stage.

- Blood/alcohol levels

In many countries, drink driving is a less important – since less frequent – problem for lorry drivers than for other drivers. The professionalism of lorry drivers, the time spent on the road and the risks inherent in the weight of the vehicle in the event of an accident nonetheless militate in favour of effective regulation.

All ECMT countries, except Morocco, have established a maximum blood/alcohol level above which it is illegal to drive a motor vehicle. The limit, which applies to all drivers irrespective of the type of vehicle, ranges from zero in Poland to a maximum of 0.8‰[2], with levels of 0.2‰ in Sweden and 0.5‰ in a number of other countries.

Few countries have introduced a different limit for lorry drivers; in Spain the limit is 0.5‰ for lorry drivers and 0.3‰ for those transporting hazardous goods, whereas the general limit is 0.8‰.

The lack of uniformity in the legal limit does not facilitate compliance, even though it can be justified partly on the grounds of sociological differences regarding the consumption of alcohol in different countries.

Everyone today recognises the harmful effects of alcohol on drivers and, as a result, the legitimacy of regulation.

- Distance between vehicles

Apart from applying the general rule included in all national road codes whereby driving must be appropriate to traffic conditions, in particular by maintaining a safe distance from other vehicles, few countries set a minimum distance to be maintained between vehicles following one another.

Where a figure has been set, it generally applies to all vehicles and is given in metres or seconds. Even fewer countries have introduced a specific value for lorries.

However, the problem of distance between vehicles is of increasing concern, since vehicles increasingly follow too closely. More in-depth examination could be undertaken in the near future to assess the need to set precise rules and determine appropriate values.

- Safety belts

Some countries already introduced compulsory fitting and wearing of safety belts on lorries, or plan to do so. This might have a good effect on drivers' safety.

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2. In most ECMT Member countries, blood/alcohol is measured in g/1. Since results differ slightly from one country to another, the ‰ measurement is used throughout this section.

   There are widespread calls for a legal blood/alcohol level of 0.5‰, or even zero, to be enforced.

   A draft Community Directive recommends harmonization at a level of 0.5‰ for all drivers, whether lorries or other vehicles.

   However, it should be noted that measurement of blood/alcohol by breathtests and the setting of a corresponding legal limit expressed in grammes/litre of exhaled air is gradually replacing the blood measurement. This will eventually enable more checks to be performed, with fewer physical constraints, thereby increasing the effectiveness of such provisions.

b) Traffic management measures

The various measures in force in this sphere are aimed at ensuring smooth traffic flow, notably of lorry traffic, in order to reduce unnecessary delays and ensure optimal safety for all traffic. The measures most often implemented include:

- Recommended or mandatory routes for lorries that bypass town centres or specific areas whose physical characteristics are unsuitable for lorries (narrow passages, bridges, etc.); these routes are open and signposted permanently or temporarily to deal with occasional traffic congestion.

- Mandatory routes for specific categories of vehicle in accordance with the type of goods transported, especially hazardous goods.

- Various local measures linked to the road infrastructure or equipment; they are intended to facilitate traffic, notably in built-up areas, and they are also of benefit to lorries: parking regulations, traffic signal cycles, variable signs, etc.

- Lorry parking restrictions in built-up areas have been introduced in some countries, with differing criteria:

  – During specific periods: at night, on Sundays or at specific times of the day.

  – In specific areas: residential areas, around hospitals.

  – For specific vehicles, according to weight.

Here, too, there are differences among countries in terms of whether or not they lay down such restrictions and, if so, in terms of the criteria adopted.

Bans are an important component of the regulations governing lorries, essentially owing to their effect on economic activity.

Bans on lorries are applied on a fairly general basis, though a few countries such as Belgium, Finland, Luxembourg and Sweden do not have any.

They are applicable to vehicles of a given weight, during set periods (usually weekends) and over longer or shorter sections of the road network.

Exemptions exist, general for some categories of goods, but also on an individual basis granted by local authorities.

Bans are warranted in order to ensure a smooth flow of traffic during periods when car traffic is heaviest, improve safety by avoiding the lorry/car mix, separating lorry and car traffic, protect the environment, and comply with social regulations.

Bans differ greatly in the various countries in terms of vehicle weight, road category and, above all, the periods when they are applicable. Although traffic bans are usually in force at weekends, the times when the restriction period begins and ends differ from country to country. Goods traffic is disrupted in the lead-up to the periods, with queues forming at borders which are prejudicial to the entire economy. In addition, compliance with regulations on speed or driving and rest periods can be adversely affected in

an attempt to avoid the periods when traffic is banned. Exemptions are often called for on this basis, but a traffic ban becomes ineffective if too many are granted.

During discussions on road traffic management at the meeting of the ECMT Council of Ministers in Paris in November 1992, the Ministers decided that bans should be harmonized, so it now remains for them to agree on the criteria to which the bans are to be based and established procedures acceptable to all.

c) Social regulations

All the countries have regulations laying down maximum periods of uninterrupted driving per day, hours per week and month, and minimum rest periods. They may be national or comply with Community or international provisions.

In general, the vehicles subject to such regulations are those of more than 3.5 tonnes, except in Germany, where vehicles of more than 2 tonnes are also affected.

In most countries, exemptions apply to public service, police and army vehicles and the vehicles of medical or emergency services.

Driving and rest periods differ from one country to another, for example from three to five hours for uninterrupted driving periods to 8 to 10 hours for cumulative driving times per day.

Similarly, the minimum daily rest period varies between 9 and 11 hours, and weekly rest between 32 and 45 hours.

In most countries, the employer has an obligation to ensure that his company's drivers comply with the regulations, subject to penalties and liability in the event of an accident.

For the sake of safety – and also of competition – driving and rest periods should be harmonised on the basis of scientific analyses of diminishing levels of alertness. It would also be desirable to adopt a common definition of the terms "driving" and "rest" and to decide in particular, which of these terms covers loading and unloading, administrative formalities and all those tasks that are not properly speaking driving but which are performed by lorry drivers during working hours.

3. Conclusions

Although developed to a considerable degree in all countries, regulations governing lorries with regard to traffic, rules of behaviour and social matters are still deficient in some respects and have not been standardized. Steps need to be taken by ECMT countries to ensure better harmonization of these regulations so that they will be better understood by lorry drivers and, accordingly, be complied with more effectively.

CHAPTER VI

MONITORING AND PENALTIES

1. Introduction

The need to impose a minimum of traffic regulations became evident at a very early stage, in order both to ensure the safety of the various types of road user and to govern relations among them so as to avoid accidents. All countries therefore established a code of rules for road traffic at the very beginning of the age of the automobile.

It must nevertheless be admitted that regulations handed down by governments are far from sufficient in themselves, as experience has proved. Road traffic regulations are only as effective as the monitoring carried out to ensure that they are respected and when offenders face the risk of being identified and punished.

A questionnaire was sent to all Member countries to ascertain the existing situation and determine what methods, measures and resources were needed for purposes of enforcement and penalties with a view to ensuring satisfactory compliance with traffic regulations.

2. Monitoring

A certain level of traffic monitoring and law enforcement is called for not only to identify dangerous and irresponsible drivers but also to influence the behaviour of road users in general.

It is now recognised that enforcement authorities have to perform two tasks:

- The first is preventive and educational; the police must first and foremost prevent offences, help road users and teach them the correct way to behave in traffic.

- The second, however, is the punishment of offences; the police must ensure that offenders are prosecuted if an infringement is detected.

Responsibility for the organisation of monitoring may fall to central or regional government or even to local authorities, depending on the political and administrative structure of the country.

General checks (driving and vehicle licences, condition of the vehicle, tyres, headlights, direction indicators), which therefore also apply to lorries, are carried out in all the countries that replied to the questionnaire. Checks are performed at frequent intervals in two-thirds of them, but only occasionally in the remaining one-third.

Three out of four countries conduct specific checks on lorries (driver and vehicle licences, condition of the vehicle, testing of blood/alcohol levels, length of driving and rest periods, operation of the tachograph). Loads and vehicle weights and the carnage of dangerous goods are monitored in all of the countries. The checks are occasional in three countries out of four and in one out of every two countries the driver is entitled to continue his journey without having to unload excess goods; everywhere else he is obliged to unload the excess. Only three countries (Spain, France and the United Kingdom) check the working of the speed governor.

Two-thirds of the countries in question considered the co-operation between bodies belonging to the same or different administrative authorities to be satisfactory. Moreover, all the countries consulted want to receive an official notification if the police of another country find that a vehicle registered in their country has obvious technical defects. Almost everywhere there is a central body to which such notification can be sent. In 75% of the countries the vehicle licensing authorities are responsible for checking that vehicle defects have been rectified; elsewhere the task is assigned to the police.

Finally, in around two-thirds of the countries in question the authorities (police, health and safety inspectors) have the power to carry out spot checks within companies to verify whether drivers have complied with regulations on the length of driving and rest periods and, in some cases, speed limits. They can consult the tachograph disks, consignment notes, invoices, etc. for this purpose.

The results of the survey among ECMT members show that practically all the countries carry out specific checks on lorries, with the emphasis especially on observance of the regulations on the length of driving and rest periods (tachograph), loads, weights and the carnage of dangerous goods. Nevertheless, it is known from experience that very often drivers with a CB transceiver in their cab keep each other informed and thus manage to evade police checks by reducing speed before the interception point, by taking a different route or by parking their vehicle at a rest area.

The effectiveness of the monitoring services depends largely on the manpower of the various police bodies, the equipment at their disposal (vehicles, radar apparatus, weighbridges, etc.) and the professional training of the personnel employed to use the equipment and to carry out certain technical checks on vehicles. However, in view of the financial difficulties currently facing the public authorities at all levels, the resources available to the police in terms of manpower and equipment are inevitably being curtailed.

Despite the difficulties due to budget restrictions, it is essential that the road safety authorities do all they can to maintain an optimum level of monitoring and enforcement by operating as cost effectively as possible. Checks must therefore be qualitative and selective and effort must be concentrated on the most dangerous infringements from the point of view of road safety: violations of regulations governing the length of driving and rest periods and breaks, the carnage of dangerous goods, drink-driving and maximum permitted speeds and weights. In addition, checks must be quick, safe, co-ordinated and efficient.

3. Penalties

The object of penalties is to induce the offender to comply with the regulations and to modify his behaviour accordingly. If this objective is to be achieved, however, the penalty must be imposed as soon as possible after the offence has been committed. If the time lapse between offence and punishment is too long, the penalty will have little effect on the offender's future behaviour.

Some countries are applying or studying new techniques to speed up the handling of offences modify penalties and relieve the pressure on the courts when offences do not involve a serious risk:

- Replacing fines by administrative penalties; this provides for penalties that are imposed quickly and are therefore more effective in terms of road safety.

- The direct and immediate collection of fines by the traffic supervision authorities (in the case of minor offences).

- The creation of a central computerised file on offences so that habitual offenders can be identified more easily.

In addition, penalties must be proportional to the seriousness of the offence and the resultant danger. Thus, some countries have introduced penalties that vary with the infringement, primarily taking account of the resultant danger. Moreover, monitoring and enforcement operations should be widely publicised so that they continue to have a deterrent effect.

The replies received reveal great disparities regarding penal sanctions and administrative measures.

In the majority of countries, some offences (especially speeding or infringement of the rules on the length of driving and rest periods) can be detected and punished by reading the tachograph disks; in around two-thirds of them, this can be done not only on the road but also at the employers' premises. If several offences of the same kind are detected over a given period, the penalties are cumulative in close to half the countries that replied to the questionnaire.

In around half the countries, an employer or superior who induces the driver to commit an offence or does not prevent him from doing so is liable to the same punishment as the driver. In Germany, the punishment is even more severe to take account of the financial advantage obtained by the employer.

In the great majority of countries that replied to the questionnaire (except Switzerland and, in certain cases, Belgium), professional drivers who are guilty of speeding or driving under the influence of alcohol do not receive more severe penal sentences than other drivers committing the same offences.

The survey also revealed that international legal aid is still difficult to obtain in cases of offences committed abroad. The same is true of the international consequences of the permit suspension. In only half the countries do the authorities withdraw the permit of a driver who has committed an offence in a foreign country – and who for that reason is banned from driving there – and so act as though the facts and circumstances leading to restriction of the right to drive abroad had occurred on their own territory.

4. Conclusions

The European countries' experience with specific checks on lorries, as summarised in this chapter in the light of replies to the questionnaire, shows that the previous recommendations of the Council of Ministers have generally been put into effect and that all the countries carry out regular checks of this kind, as far as they are able.

Nevertheless, as the frequency of monitoring is a decisive factor in achieving a deterrent effect, it is essential that checks on lorries be stepped up and improved in each country in order to ensure a satisfactory level of compliance with road traffic regulations.

Accordingly, it would be advisable in particular:

- To carry out more frequent checks on the length of driving periods, daily rest periods and breaks, not only on the road but also on the firm's premises. This is the most effective way of

ensuring that regulations on working, driving and test hours are properly observed. It would therefore improve road safety and help protect the health of professional drivers themselves.

- To make provision for the penalisation of employers or superiors who induce drivers to commit an offence, or do not prevent them from doing so.

- To step up the efficiency of checks by using a range of different procedures and types of equipment.

- To endeavour to impose penalties promptly and give wide publicity to operations to monitor and punish offences that seriously jeopardise road safety.

- To continue to carry out the technical inspections needed to ensure that the roads and national territory are safe.

- To develop mutual assistance in legal matters and increase co-operation among countries in order to recognise and enforce suspensions internationally.

- To increase co-operation among countries with a view to achieving harmonization of the monitoring and penalties relevant to lorry drivers.

CHAPTER VII

ROAD SAFETY CAMPAIGNS CONCERNING LORRIES

Over the part decade, information and awareness campaigns have gradually come to be accepted as a means of improving road safety. There is a limit to what regulation, signs and signals, and even penalties can achieve, as has been revealed by reports on human behaviour and decentralised road safety policies: other, complementary measures are required to back up and strengthen the role of the State. All countries use information, education and awareness campaigns to help reduce road accidents of all types, and especially those involving lorries. If safety rules are repeated often enough, it may be hoped that they will finally be adopted by road users and become automatic reflexes. "Post-campaign" polls conducted in some countries indicate that at least some good habits may have been adopted. While progress is undoubtedly slow, it is nevertheless steady.

Awareness and information campaigns are as a general rule regarded as an essential supplementary means of promoting safety, a point that was discussed in great detail in the report on ways of influencing human behaviour with a view to improving road safety [CEMT/CM(86)15].

More particularly, the greatest possible stress must be laid on the need to increase the awareness of all concerned: governments, haulage firms, professional drivers and their federations, with a view to developing joint activities. Road safety must therefore be promoted within the haulage business itself, both by drivers and for drivers, within their firms and together with their employers.

Awareness and information campaigns are by and large organised by government at national, regional and local levels. Private initiatives by hauliers, unions and employers' organisations are by no means negligible, however, and in some countries account for the main thrust in certain cases.

When campaigns more specifically target lorry drivers, the topics addressed and advice given relate mainly to conditions of work, rest periods, loading and unloading of goods, especially those which are harmful or hazardous, and the risks to other road users, in particular pedestrians and two-wheelers.

In many countries, drivers who cake the point being made and follow the advice given and who are ready to change or adapt their driving to reduce accident risks may qualify for more favourable insurance terms (bonus/surcharge), may be rewarded by their employers (with bonuses or extra days off) or receive fringe benefits from the government (extra holidays, early retirement).

In practical terms, consideration may be given to raising the level of awareness by:

- Creating and promoting a climate of road safety within haulage firms with the participation of hauliers' organisations and federations.

- Ensuring that all concerned are committed to take practical steps to improve safety and inviting them to sign charters to this effect.

- Accentuating the role of social partners.

- Alerting drivers to their professional responsibilities as drivers, providers of services and custodians of material and social goods.

- Alerting them to the imperatives of accident prevention by holding competitions and encouraging discussion between haulage firms and professional bodies.

- Providing rewards and incentives for salaried drivers.

- Promoting the role of user associations and professional federations.