Human Factors and Road Safety in the Czech Republic

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Annotation:

This is the first time the Czech Republic Government has decided to do something with the burdensome situation of Czech road safety. The number of fatalities and extreme material losses caused by accidents has forced legislators to amend the legal code and related decrees pertaining to road traffic. Since Saturday, the 1st of July, 2006, road traffic rules have been altered significantly. Due to the fact that numerous surveys, as well as foreign experience, have shown that the greatest opportunity for a reduction of accident and death rates on the roads lies in the approach to the ‘human factor’, legislation with regard to traffic on Czech roadways has changed appreciably. Harsh legislative amendment to traffic law has introduced the point system, much higher fines, and other changes that should enhance safety on Czech roads. The driving public had an urgent need for relief from chaos on the roads and from obsolete rules that were unable to inhibit flagrant infractions by maniacs in over-powered cars or the passive disregard of those who risk their lives and the lives of their children by leaving seatbelts unbuckled.

Pic. 1: Accident on zebra crossing
Background

Drivers in the Czech Republic rank among the worst in Europe. Each year in this country there are 130 road accident fatalities for every one million inhabitants. Czech drivers are unruly, and cannot drive well because they lack the experience of their foreign colleagues. They are nasty, aggressive and unafraid of sanctions. In the ten years following 1993, there were two million traffic accidents in the Czech Republic, which killed about 14 thousand people. Damage to property has exceeded 65 billion crowns. On average, every 2.7 minutes an accident is reported to the Czech Republic Police; every 18 minutes, there is a minor injury; every 96 minutes a major injury is caused by accident; every 6.7 hours a victim of a road accident dies. Every hour, damage caused to property exceeds one million Czech crowns.

Fig. 1: death according to age groups

In comparison to modernized countries with large motoring public, road safety is still not given priority by Czech society. Awareness of operating rules is extremely low among road users as compared to that of the more developed countries, as is the level of law enforcement.

During the 1990’s, the unsatisfactory state of road safety earned limited acknowledgement from the traffic authorities. The prognostications of a small group of experts were not taken into consideration. Although the authorities approved their proposal for the introduction of certain measures, no support funding or legislative background was ever created to respond to those predictions. Road accidents and their consequences were considered an inevitable corollary of motorization, freedom of mobility, and new life styles. The government only began to implement basic, short-term, remedies in 1998, in response to receipt of tragic statistics from 1994. The programme focus is aimed at the necessary improvement of current structures and practices. In order to reach its main target – an annual reduction of road fatalities by 5 per cent – the programme summarized tasks for each partner of the National Road Safety Council. From its inception this was designed as a temporary action and a need for a further long-term strategic programme has been evident.
Despite certain positive results reached by the Action Programme in 1999 and during the first quarter of 2000, it has become increasingly clear that the road safety programme cannot be formulated as a summary of relatively independent activities by the bodies involved. Its main insufficiency is shown in the limited decision-making authority of the National Road Safety Council. The current system of funding, without any co-ordination by the Council, is especially inoperable. One of the most flagrant examples of the contradiction between principles and practice is the emphasis placed on the importance and efficiency of engineering measures in the face of constantly decreasing maintenance budgets for the Road and Motorway Directorate.

The current situation can be remedied only by means of a co-ordinated approach in the prohibition and prevention arena, including the passage of a number of essential amendments to the law covering road freight transport. An essential precondition to the success of the proposed strategy is the active participation of all the entities concerned including: state authorities; public administration; businesses engaged in transport; non-governmental organizations and civic associations; and support for the project as a whole from the general public. An interdepartmental working group comprised of representatives of the state administration has drawn up the National Strategy for Road Safety. Additional experts and representatives of the public administration were invited to take part in proceedings in which their thoughts, ideas and comments were welcomed.

The proposed strategy is based on:

- Deep analysis of the development of road accidents in the Czech Republic
- The legal regulations in force in the Czech Republic
- The current powers of the public administration and its standard of performance
- SWOT analysis of the road safety situation
- The international obligations of the Czech Republic
- The transport policy of the Czech Republic

**Fig. 2**: Number of killed on 1 million of Inhabitants, international comparison

![Graph showing number of killed on 1 million of Inhabitants, international comparison](source: CDV, RNDr Jan Tecl)
New Road Traffic Regulations

In principle, amendment to the Road Traffic Regulations was based on new, preventive measures to assist accident reduction. It is supplemented by restrictive measures particularly focused on chronically aggressive drivers who commit repeated road infractions. Since the 1st of July, these drivers must expect to suffer not only accumulated driver point assessment, but also significantly higher financial sanctions for each road offence. At the same time the new law has given new authority to the Czech Republic Police, who will, in extreme cases, be able to retain a driving license on the spot, prevent the motorist from driving further, or to request a payment of bail. The Municipal Police have been newly authorized to measure the observance of the speed limit.

The main changes lie in the introduction of the point system: the driver is awarded penalty points specified by the tariff for each traffic offence, and when the defined maximum amount of points is reached, the driving license is withdrawn from this driver for one year. The newly developed regulations include an obligation to illuminate the headlights throughout the whole day, all year long; it has created municipal authority to regulate speeding infractions; it has obligated the use of child safety seating; and has strengthened the sanctions for drinking and driving.

Implementation of the new regulations has raised contradictory feelings among motorists. It is not surprising that even members of Parliament are not happy with the law, and immediately after it was passed they started preparation for its further amendment. The portions with regard to the Czech viniculture, for example, were added to the law during its passage only after two amendments.

The Point system

Upon apprehension for having committed a driving offence a driver is not only fined, but also given penalty points. This penalty point system is divided into three groups according to the seriousness of the infraction. The most lenient amount of points awarded is one; the most serious offences are assessed seven points. When the driver collects 12 points, his/her driving license is withdrawn for one year. However, four points are deducted from the record if a driver does not commit any offence for one year. This means that a driver whose account contains the maximum allowable points can clear their record by driving three years without an offence.

Traffic authorities were not ready for this new responsibility. Record storage of the penalty points by the authorities had the potential for failure. Previous to adoption of the regulation, serious concerns were expressed about the ability of police procedures and information systems to accurately log and maintain the point system record. It was the intention of the Czech Police to turn over their information of imposed penalty sanctions to the extended authority of the municipal officials of cities, towns and villages, where they were to be recorded. Unfortunately, a number of these authorities did not have the necessary computing system, software, or staff, just a few days before implementation of the law.
**Increased fines for offences**

If it is your intention to continue violating the traffic regulations of the Czech Republic, you should be prepared to spend a lot of money paying fines. The rates for offences have increased rather dramatically. Today, the lowest penalty is a mere 1000 CZK (30 Euro), but for many offences it is much higher. When committing the most serious offences, you may expect sanctions in the order of one hundred thousand CZK. Among them, for example is: driving on a motorway without a motorway coupon, which - according to the new law - can be punished by a penalty of up to half a million CZK. According to former Transport Minister Šimonovský, this penalty would be applied only in extreme cases; for example, in the case of falsifying motorway coupons. However, the judgments in administrative proceedings is arbitrary.

**The obligation to illuminate headlights throughout the year during daylight**

An obligation to illuminate headlights during all daylight hours has been introduced for the first time. The penalty for ignoring the regulation is a fine of between 1500 and 2500 CZK in the administrative proceeding, and assessment of one point in the penalty system. If the offender elects to pay the fine on the spot, they will be assessed 2000 CZK.

A number of benefits are gained from the obligation to have the headlights on during daylight hours. First of all, oncoming cars are much more visible; opposing drivers are able to see oncoming vehicles sooner. It is also much easier and faster for drivers to estimate the correct distance and speed of an oncoming car, or to distinguish between parked and moving vehicles. Having the lights on is particularly important during some hours of the day when the ability to distinguish cars under poor visibility conditions is limited. This applies, for example, to early summer evenings when the setting sun aggravates the identification of oncoming cars; it also plays an important role in the timely identification of oncoming vehicles on avenues with alternating light and shade.

As determined by the experience of other countries, the obligation to illuminate headlights at all times throughout the year is likely to reduce the numbers of the most severe accidents (frontal collisions on rural or suburban roads, or collisions when turning left against oncoming traffic). It may also alleviate the consequences of many others. The obligation to drive with the lights on during daylight in the wintertime has proven effective as indicated by the reduced number of road casualties and fatalities in the last two years here. Experts
estimate that the number of serious accidents with the most severe consequences could drop by even as much as 10 to 15 percent. Under present conditions this figure would mean up to 100 human lives saved per year.

**Even imprisonment for drinking and driving**

Driving a vehicle under the influence of alcohol has been newly defined as crime - but not under all circumstances. The amount of the fine and the number of points depend on the amount of alcohol per mille in the blood; and the demonstrated ability to operate the vehicle. Detection of the presence of alcohol is an expanded area of authority extended to the Municipal Police. The Municipal Police are allowed to administer a Breathalyzer test for the confirmation of suspicion of intoxication while operating a motor vehicle. An added option of the law is that in some cases the policeman may withhold the driving license or prevent the driver from driving further. The amendment has brought about higher sanctions for driving under the influence of alcohol or narcotics (drugs, medications)

**Children should be in special seats**

Every child weighing less than 36 kg, and with the height of less than 150 cm must be fastened in a child safety seat during any journey on all roads of the Czech Republic. All children in any vehicle must be secured at all times. This legislative point is also accompanied by a new interpretation of the seat belt law requiring they be fastened by all persons in any vehicle. Now the law strictly stipulates this requirement, with few exceptions or excuses.

**Ban on telephoning**

Amendment of the law has also stipulated a strict approach to those who use a telephone when driving. Those who want to use a mobile telephone must have a hand-free set, or may otherwise be fined 1000 CZK when paid on the spot, or up to 2500 CZK in administrative proceedings; and receive an assessment of three points to their driving records.

Following their incipient growth, most countries have discovered the danger of using mobile telephones while driving, and have gradually introduced prohibitions of varying intensity for their use. In some countries the prohibition of telephone use while driving, even with hand-free sets, is being considered because this activity distracts the driver and reduces driving concentration. Various surveys have proven that using the telephone while driving increases the risk of accidents in the same exponential manner as the use of alcohol. The risk of accidents increases four times!

The reason is quite obvious: It is an accepted assumption that two things cannot be done at the same time with one hundred percent of ability. A driver restricts his or her ability when using only one hand for control of the car. However, the primary disability introduced when the attention is distracted is the loss of anticipation, and the absence of mental and physical preparedness to deal with constantly occurring unexpected situations. The actual holding of the device is as not dangerous to the safe operation of the vehicle as the loss of attention and lack of concentration on driving. The reactions are slower by up to a second and a half, which represents the extension of the stopping distance by dozens of meters. Considering the above, when driving at the permitted motorway speed of 130 km/h, the stopping distance is extended by 50 meters! According to the findings of psychologists, drivers who do not concentrate often overlook road signs and often fail to give way.

The amendment has a very positive aspect - an unambiguous and unquestionable clarification of the obligation of the driver when he/she is using the telephone: The driver must not hold the mobile phone in hand or otherwise (for example between the head and the shoulder), the exception being the use of a hand-free set. In connection with considerable sanctions within the point system, as well as penalties, the amendment should succeed in restricting this dangerous phenomenon. All experts agree that there is only one safe way of using the mobile telephone in the car: To turn it off before driving.
Ban on using anti-radar devices

The law written to ban the use of anti-radar devices includes defined specifications of the anti-radar as active devices that disturb or influence the activity of Police equipment. It requires the Police to respect passive anti-radar devices and not to punish their use. However, interpretation of the law is ambiguous: Even passive anti-radar disturbs the intended activity of Police radar which is then prevented from performing its function because the driver adjusts the speed according to the indications from his or her device.

Police authority

Municipal Police officers are given new authority to measure speed outside the territory of their town (municipality), those road sections outside the limits designated by the road sign “Town”, but the activity must be in cooperation with the Czech Republic Police. They are also authorized to test the amount of alcohol in blood. The Customs Administration is another agency that will become involved in control of the roads.

Driving on roundabouts or rotaries

The law has provided specification for the use of direction indicators when entering a roundabout. Thus far it has been the decision of the driver whether to use them or not, now it has been explicitly prohibited. Direction indicators are to be used only when leaving the rotaries.

In the majority of advanced European countries a considerable number of crossroads contains rotaries, which significantly helps in reducing the number and particularly the seriousness of accidents (cars enter roundabouts under much lower speeds than at normal crossroads, where frequently the autos on the primary artery travel with excessive speed).

The number of roundabouts in our country is also quickly increasing, and experience has shown that many drivers still are not sure about how to behave before entering and leaving the roundabout. Section 30, Paragraph 5 of the amendment provides clear, exact, logically explained definition to driver obligations. The amendment is expected to result in better organization at roundabouts, and a strict adherence of the rules may increase their efficiency. We still witness situations where drivers do not use directional indicators when leaving the rotary, forcing drivers about to enter the roundabout to wait unnecessarily. As soon as the behaviour required by the amendment becomes commonplace, it is certain to result in a reduction, or even elimination of the occasional queue before roundabouts. Drivers entering a roundabout need timely information about the intention of the drivers already using the roundabout.

Driving in lanes

Paragraphs 6 and 7, Section 12, of the amendment specify the behavior when driving on roads with more than one lane. Common sense would be expected to determine the actions of drivers when changing lanes, but actual road conditions show that this is not the case. The amendment deals with such situations quite clearly and explicitly. If two drivers on a roadway of three or more lanes want to join an empty lane at the same time the rule to yield to the right is in effect. It means that the vehicle coming from the slower (internal) lane has the right of way. Right has right. However, some drivers may have been under the mistaken impression that faster moving vehicles have preference.

Another Section specifies procedures for merging into a motorway or freeway using the acceleration lanes, whose features drivers are obliged to use where they exist.
Parking

The new amendment makes provision for parking a vehicle, not only parallel to the pavement, but also perpendicularly or diagonally at the side of the road without the necessary designation of a road sign if at least one 3 meter lane remains free for passing traffic. The law has also given drivers the option of stopping temporarily in the second lane, but they are obliged to show extreme care not to jeopardize the safety and fluency of road traffic.

Drivers are now allowed to stop at reserved parking places for up to three minutes if he/she does not restrict other road traffic participants, particularly those for whom the parking place is reserved. This does not apply, however, to parking for the disabled. It is at no time allowable to stop or stand at parking places reserved for the disabled. As to such parking places, entry to them without the designation O1 is prohibited. Parking in breach of these regulations without a disability card and respective designation on the vehicle may result in fines between 5 and 10 thousand CZK, and may result in license suspension of up to one year. According to another new paragraph, Section 27r; there is now a complete prohibition on parking on vegetation along the roadside, unless a local specification allows it. It has been confirmed that standing on two-way roads is allowable only on the right-hand side; standing on one-way roads is allowable on either side.

Although these new developments may increase parking capacity in some areas; it will still be necessary to follow local customs and apply common sense. The selection of the place is also of significance; even if the above condition is met, the perpendicular position of the vehicle may be risky. Otherwise both the passing motorist, who while overtaking another auto suddenly encounters an obstacle in the form of a perpendicularly parked van, and the standing vehicle can experience a bad end. The law also newly enables the removal of vehicles that park at any reserved parking place without authorization. Both the Czech Republic Police and the Municipal Police can have such a vehicle removed (Section 27, Para. 6). The vehicle operator pays for its removal.

Cyclists and helmets

All cyclists under 18 are obligated to wear helmets when riding a bicycle (it had been to the age of 15). When overtaking cyclists, a driver must use directional indicators, even if his/her vehicle is not changing lanes.
Motorways and camions

Vehicles with maximum design speeds of less than 80 km/h are prohibited from entering motorways; although this does not apply to roadway sections that pass through towns. On local roadway segments vehicles unable to exceed 65 km/h, according to registration papers, can also use the motorway. The corrective amendment has annulled the ban on overtaking on the motorways by camions. So far, however, the ability of camions to run on weekends has brought a lot of resentment from citizens as well as from members of Parliament. It is likely that this part of the law will soon be cancelled and the extensive restrictions will be replaced.

Drive-through lane on motorways during traffic congestions

To ensure a fluent passage of vehicles with the right of way (vehicles with blue light beacon), the law has newly specified creation of the so-called ‘drive-through lane’ of at least 3-metre width on the motorways and freeways (i.e. roads for motor vehicles). Drivers are obliged - before their vehicle is stopped in congestion - to create a lane for use by so designated vehicles with the right of way.

Driving licenses

International licenses, standardized for Europe, will gradually replace Czech driving licenses. The deadline for replacement is 2013. The validity of a new driving license, however, is limited to 10 years. Seniors over 68 years of age must undergo medical examinations every year; the same applies to professional drivers who are obliged to also undergo other tests, such as ECG, or psychological analysis of their medical and mental condition and abilities.

Preventing from driving and bail

According to the law, in specified cases the Police have the option of preventing a driver who broke the law from continued operation. It is not merely enforcement that includes the use of wheel clamps, but also the extraordinary arrest of a driver checked during road control. If a policeman has doubts about the probability that a driver who committed an offence will appear at the administrative proceedings, he/she is authorized to require a bail payment. The bail can amount to the maximum sum of the fine to be imposed for the offence committed, and will not exceed 50,000 CZK.
Positive and negative aspects of the new Road Law

What are the greatest positives and negatives of the road law amendment? The good aspects have become clear as well as have the faults. Probably the greatest benefit is the fact that the number of fatalities has been reduced; and road traffic has become significantly calmer. The presumption that the main impact of the law would be to the “road pirates” - those who chronically exceed speed limits - has been also confirmed.

On the other hand, there has been some criticism of the extent of the measures: traffic has become too slow at some places and queues have started to form - drivers who previously drove with extreme caution, have started to drive even slower. And it has been shown that one of the greatest problems of Czech drivers is that they are unable to drive fluently. This disharmony has been also contributed to with confusion due to a number of nonsensical and sometimes contradicting road signs.

The legislative amendment has introduced a novel approach to safety on Czech roads in the form of penalty points. The system is quite clear, but its penalty assessments are sometimes disproportionate to the seriousness of the offence: high fines and point punishments are awarded for even some small offences that do not pose serious danger to anybody. This applies, for example, to strict penalties for forgetting to renew last year’s motorway coupon.

Positives

- A year-round obligation to drive with the lights on during the day
- State Police may withdraw a driving licence on the spot for serious offences
- Calming of aggressive drivers, speed limits are more respected
- Obligation to use child safety seats
- Obligation to use helmets by cyclists under 18 years of age
- Obligation to give indication when overtaking cyclists
- Extended possibility of stopping and standing (in the second row; diagonal and perpendicular standing)
- Clarification of drivers’ obligation with regard to pedestrian crossing
- Clarification of rules for driving in lanes on the motorway
- Right of way ‘free lanes’ for ambulance and other vehicles in motorway congestion
- Clarification of rules for driving on a roundabout
Negatives

- Personnel from the Municipal Police, who have more staff, but are not prepared to assist at many locations, have compensated for the lack of Czech State Policemen, who are supposed to supervise the adoption of the new regulations.

- The setting of the point system and fines does not correspond to the dangerousness of individual offences; for example the same penalty is set for exceeding the speed limit in town by 1 km/h as is set for exceeding the limit by 19 km/h; absurdly high are the penalties for merely stopping at reserved handicapped parking, or for cycling accidents during which a cyclist hurts him or herself.

- The law allows the police too much discretion as to how strict they will apply penalty to drivers (for example whether to impose six or seven points for drinking and driving)

- So far it has been difficult to determine the balance of a driver’s point account; it has also been unclear and insufficient to monitor the gradual “clearing” of points

- Significant extension of permitted camion and lorry traffic on motorways and class 1 roads during weekends, while in the surrounding countries there has been a tendency to limit the operation of camions as much as possible

It is an unquestioned fact that the controversial legislative road amendment, in force from 1 July, has brought about a significant reduction of a number of accidents and their tragic consequences. The threat of having your license withdrawn, however, has greatly influenced drivers, and one particular result has been that many motorists are driving too slowly. Even after a month people were still shocked by the law. Not only do they not exceed the speed limit, they often do not drive as fast as is allowed. Apart from speed, people are mainly focused on those offences that received lower fines in the past. Even though there are no statistics concerning the whole country yet, preliminary figures from the individual regions show quite clearly that there have been fewer accidents as well as fewer casualties.
The new law carries new problems and discussions

Less visible are indications of how the officials are coping with the new amendment, since it is they who have had to deal with cases, which, so far, have not been within the sphere of their responsibility. Computer systems have collapsed in many parts of the country; court systems have also had problems because they have been flooded by relatively small traffic offences.

The point system has also changed the attitude of the citizenry toward the work of the Police. In the majority of cases the Police are trying to educate drivers and, in the disposition of small offences, prefer fining the driver on the spot rather than withdrawing points from him/her. But the unwanted notoriety of highly place police representatives who have been involved in traffic infractions has tarnished the image of the ‘Men of Law’. The public has been witness to the offences of Mr. Husak (Police President) and Mr. Cas (high Police official), which has lead to deterioration of general public subscription to the intent of the amendment and will undoubtedly lead to the situations where drivers copy their behavior. We can only hope that the changes now being prepared will strike the best possible compromise between the behavior of drivers, and the performance of the police, municipalities, and the court systems.
Pic. 4: Police work enforcement
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