



Bundesministerium
für Verkehr, Bau
und Stadtentwicklung

Consistency between the Convention on road traffic and ECE-Regulations - background to the common German-French- Statement

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Main Issues

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- Conclusions on the basis of the Convention on road traffic
- Relation between ECE-Regulations and Convention
- Do DAS respect the principle of controllability today?
- Examples for losing control over the vehicle
- Why not accept to override the driver?
- Suggestions



Today's Situation

- Driver Assistance Systems (DAS) are not regulated at the moment (exemption: ESP, AEB, LDW – ECE-Regulations exist or are in preparation)
- DAS are designed by the Automotive Industry according to their own standards
- but requirements to DAS fall under the scope of the general legal framework (national traffic and civil law; product liability law)
- essential requirement in Germany: DAS have to be designed in a way that allows the driver fully to control the vehicle – Why? it is a requirement of national behavior law which is based on the Convention of road traffic and it is a consequence of liability issues which are based on responsibility of the driver



Convention on road traffic

Essential are the following provisions:

- Article 8 (1): “Every moving vehicle or combination of vehicles shall have a driver” (not two drivers: the system and the driver).
- Article 8 (5): “Every driver shall at any time be able to control his vehicle...”
- Article 13 (1) first sentence: “Every driver of a vehicle shall in all circumstances have his vehicle under control so as to be able to exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him.”
- Article 1 (v): “Driver” means any person who drives a motor vehicle or other vehicle ...” (this means a natural person, not a system).



German conclusions:

- 1) national law has to prescribe that the driver has always to be able to control the vehicle – legal requirement concerning his behavior (e.g. drive with appropriate speed, be attentive)
- 2) the vehicle has to be designed in a way that the driver is really able to have the complete control over his vehicle – legal requirement concerning vehicle technology, especially DAS



Relation between ECE-Regulations and Convention

Today: technical requirements in ECE-regulations have to respect the general principle of the ability of full control by the driver

- ⇒ driver must be able to control the vehicle
- ⇒ driver must be able to override DAS
- ⇒ DAS which cannot be overridden are acceptable only for situations the driver could objectively not cope with



ECE/TRANS/WP.1/2009/2:

proposal
art. 3:

Vehicles that have been type approved in conformity with ECE-Regulations shall be deemed to be in conformity with the object of the Convention.

consequence:

- the Convention (their principles) won't be a legal requirement for designing technical conditions in ECE-regulations anymore;
- crucial will be only the content of ECE-Regulations themselves
- an ECE-Regulation that allows to override the driver would be permissible and as a consequence such DAS too

Do DAS respect the principle of controllability today?

From the German and French point of view that is the case. The controllability of the vehicle is ensured in different ways:

- a) systems which only optimize the functional processes: ABS
- b) systems which only inform the driver (visually, acoustically, haptically) without intervention: speed alert; In both cases the driver has the full control. He decides how fast to drive, when to brake and how to react.
- c) systems which intervene in driving, but the intervention can be overridden anytime: cruise-control, automatic emergency brake system
- d) systems which cannot be overridden, but the intervention is simply identical with a usual feature of a motor vehicle or its functional limits: speed limiting device



More difficult case of controllability

- e) In some cases there is really an intervention which maybe understood as overriding the driver; in that cases the intervention does not query the control if the intervention occurs only in such situations in which the driver might not be able to properly perform his driving task and the intervention is consistent with the wish of the driver.

ESP, Automatic Emergency Brake System

all decisions are finally taken by the driver; that would only be changed if an automatic brake system would intervene in an earlier stage and the driver would not effectively be able to override

Examples for losing control over the vehicle

systems which intervene in a way that the driver is overridden by the system and cannot intervene himself

Examples:

- if an automatic brake system intervenes at such an early time that an accident can safely be avoided but the driver cannot override the system
- if a vehicle is automatically stopped by an alcolock system on the motorway when the driver does not comply with the request to use the device within a given time
- a system which detects obstacles and avoids them or automatically stops in front of them, whereby the decision is taken by the system



Concerns to the proposal ECE/TRANS/WP.1/2009/2:

The reference proposed for art. 3 of the Convention would leave it up to the WP. 29 to decide how far an intervention by a DAS may go. The WP.29 would not be **obliged** anymore to take the principle of controllability into consideration. ECE-Regulations could be designed independently and in principle allow systems which override the driver against his will. Moreover all contracting parties would be obliged to accept those systems on their roads.



Why not accept to override the driver?

The whole liability system for road traffic is based on the idea that the owner is always liable because of the risk connected to the vehicle operation and that the driver has the full responsibility for driving the vehicle. The injured damaged person can easily prove this liability.

In comparison: The liability of the manufacturer is limited in different ways; especially it is more difficult to prove the liability; the burden of proof is with the damaged person (product defect and causation link between the defect and the damage).



Common German-French position

- Most DAS and connected ECE-Regulations won't cause any legal problems; there will be simply a need to adjust some detailed provisions of the Convention; that can be realized by a regular update.
- No amendment of art. 3, because in some rare cases ECE-Regulations may rise the question of controllability. In that cases WP. 29 should consult WP. 1 at an early stage.