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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations****Working Party on Automated/Autonomous and Connected Vehicles\*****Second session**

Geneva, 28 January-1 February 2019

Item 5 (d) of the provisional agenda

**Automated/Autonomous and Connected Vehicles:****Automatically Commanded Steering Function****Proposal for amendments to UN Regulation No. 79 (Steering equipment)****Submitted by the expert from France\*\***

The text reproduced below was prepared by the expert from France introducing amendments to UN Regulation No. 79, based on informal document GRVA-01-38. It is aimed at clarifying the text of the Regulation. The modifications to the existing text of the Regulation are marked in bold for new characters.

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\* Formerly: **Working Party on Brakes and Running Gear (GRRF)**.

\*\* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



## I. Proposal

*Paragraph 5.1.6.1.1.*, amend to read:

"5.1.6.1.1. Every CSF intervention shall immediately be indicated to the driver by an optical warning signal which is displayed for at least 1s or as long as the intervention exists, whichever is longer.

**When a flashing mode is used, the lighting phase shall start with the beginning of the intervention and finish with the end of intervention or immediately after intervention.**

In the case of a CSF intervention which is controlled by an Electronic Stability Control (ESC) or a Vehicle Stability Function as specified in the relevant UN Regulation (i.e. UN Regulations Nos. 13, 13-H or 140), the ESC flashing tell-tale indicating the interventions of ESC may be used, as long as the intervention exists, as an alternative to the optical warning signal specified above."

*Paragraph 5.1.6.2.6.*, amend to read:

"5.1.6.2.6. Any intervention of an ESF shall be indicated to the driver with an optical and with an acoustic or haptic warning signal to be provided at the latest with the start of the ESF intervention **and maintained as long as the intervention exists.**

For this purpose appropriate signals used by other warning systems (e.g. blind spot detection, lane departure warning, forward collision warning) are deemed to be sufficient to fulfil the requirements for the respective optical, acoustic or haptic signals above.

**The optical warning signal [shall] be a flashing signal."**

*Paragraph 5.6.4.2.3.*, amend to read:

"5.6.4.2.3. The system shall only be activated (standby mode) after a deliberate action by the driver.

Activation by the driver shall only be possible on roads where pedestrians and cyclists are prohibited and which, by design, are equipped with a physical separation that divides the traffic moving in opposite directions and which have at least two lanes in the direction the vehicles are driving. These conditions shall be ensured by the use of at least two independent means.

In the case of a transition from a road type with a classification permitting an ACSF of Category C, to a type of road where an ACSF of Category C is not permitted, the system shall be deactivated automatically (**off mode**)."

*Paragraph 5.6.4.5.6.*, amend to read:

"5.6.4.5.6. The system shall provide a means of detecting that the driver is holding the steering control and shall warn the driver in accordance with the warning strategy below:

If, after a period of no longer than 3s after the initiation of the lane change procedure **and before the start of the lane change manoeuvre**, the driver is not holding the steering control, an optical warning signal shall be provided. This signal shall be the same as the signal specified in paragraph 5.6.2.2.5. above.

The warning signal shall be active until the driver is holding the steering control, or until the system is deactivated, either manually or automatically according to 5.6.4.6.8."

## **II. Justification**

### **A. Paragraph 5.1.6.1.1.**

1. It is proposed to clarify the visualization requirement of the optical signal when a flashing mode is used to indicate to the driver the CSF intervention to make sure that sufficient light is provided to the driver.

### **B. Paragraph 5.1.6.2.6.**

2. It is proposed to mention the duration of the signals as for the other categories of ACSF (e.g. CSF). Furthermore, the flashing mode of the optical signal should be prioritized by analogy to other system intervening in situation where a risk exists (e.g. ESC intervention).

### **C. Paragraph 5.6.4.2.3.**

3. It is proposed to add "off mode" at the end of the sentence, as a clarification.

### **D. Paragraph 5.6.4.5.6.**

4. Reference is made to paragraph 5.6.4.6.8. where the different cases of manually and automatically deactivation are defined.

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