

Proposal to amend the 03 series of amendments to UN Regulation No. 79 (Steering equipment)

This document proposes modifications to the 03 series of amendments to UN Regulation No.79.

Proposed changes to the current text of the regulation are marked in **bold** for new text.

I. Proposal

Insert a new paragraph:

“5.6.2.2.3 For vehicles of category M1, if the vehicle’s lane position cannot be maintained without exceeding the declared $a_{y_{\text{smax}}}$ value due to an unforeseen decrease in the radius of curvature of the bend, the declared $a_{y_{\text{smax}}}$ value may be exceeded, for a short duration, by up to 1ms^{-2} . If $a_{y_{\text{smax}}}$ is exceeded then the system shall clearly inform the driver.

This increased limit shall be permitted up to a vehicle speed of 60 km/h and shall be linearly reduced down to the declared $a_{y_{\text{smax}}}$ value between 60 km/h and 80 km/h.

The control strategy implemented, the conditions under which $a_{y_{\text{smax}}}$ value may be exceeded and the safe operation of the system shall be documented and assessed, to the satisfaction of the Technical Service, according to Annex 6.”

II. Justification

In the case of a tightening curve, only two possible control strategies are available to remain in compliance with current R79.03 requirements:

1. Maintain current steering angle and allow the vehicle to ‘run wide’ and leave its lane.
2. Reduce vehicle speed by braking

Option 1 results in the vehicle leaving the lane or the road; option 2 results in unexpected behaviour for the driver and other road users. Both of these are undesirable and a limited increase in lateral acceleration for a short duration is considered preferable until vehicle speed reduction results in reduced lateral acceleration.