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Item 1.1.7. of the provisional agenda

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 13
(Braking)

Submitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany to eliminate conflicting requirements with respect to the value "g" of the gravitational acceleration. The modifications to the current text of the Regulation are marked in **bold** characters.

Note: This document is distributed to the Experts on Brakes and Running Gear only.

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A. PROPOSAL

Annex 10, paragraph 2., amend to read:

"2. SYMBOLS

.....
g = acceleration due to gravity: $g = 9.81 \text{ m/s}^2$
....."

Annex 12, paragraph 2.1.3., amend to read:

"2.1.3. Acceleration due to gravity: $g = 9.81 \text{ m/s}^2$ "

B. JUSTIFICATION

In Annex 10 (paragraph 2.) and Annex 12 (paragraph 2.1.3.), the value of 10 m/s^2 is indicated for the value "g" (gravitational acceleration), whereas in Annex 13 (Appendix 1) the value 9.81 m/s^2 is indicated.

Some decades ago the rounded value of "10" was laid down when the braking calculations were carried out with the slide rule. These practices are history. Today, manufacturers use in their software programs the value 9.81 m/s^2 for the gravitational acceleration.

It does not make sense for the computation department of the vehicle and component manufacturers to program in their calculation software for the value "g" two different values for the same parameter "g".

Thus, Germany proposes to eliminate the conflict of requiring different values for "g" by the same Regulation. Therefore, it is proposed that, for all calculations, the value 9.81 m/s^2 shall be used.
