



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.29/2007/17
8 December 2006

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

One-hundred-and-forty-first session
Geneva, 13-16 March 2007
Items 5.4. and II.2.5.14. of the provisional agenda

**PROPOSAL TO DEVELOP A GLOBAL TECHNICAL REGULATION
CONCERNING ELECTRONIC STABILITY CONTROL SYSTEMS**

Submitted by the representative of United States of America

Note: This document contains a proposal to develop a global technical regulation (gtr) for electronic stability control (ESC) systems under the 1998 Agreement Concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles. It is based on the text of informal document No. WP.29-134-12 distributed during the one-hundred-and-fortieth session (ECE/TRANS/WP.29/1056, para. 116). The text is submitted by the representative of the United States of America to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Executive Committee (AC.3) for consideration.

A. Objective of the proposal

The United States of America proposes the development of a global technical regulation (gtr) under the 1998 Agreement for Electronic Stability Control (ESC) systems. Crash data studies conducted in Europe, Japan and the United States of America indicate that ESC systems are very effective in reducing single-vehicle crashes involving light vehicles (passenger cars, multipurpose passenger vehicles (vans and sport utility vehicles), buses and pickup trucks with a gross vehicle weight rating of 4,536 kg or less). Studies in the United States of America indicate that the installation of ESC systems would reduce single-vehicle crashes of passenger cars by 34 per cent and single vehicle crashes of sport utility vehicles (SUVs) by 59 percent in the United States of America.

ESC systems use automatic, computer-controlled braking of individual wheels to assist the driver in maintaining control (and the vehicle's intended heading) in critical driving conditions in which the vehicle is beginning to lose either directional stability at the rear wheels (spin out) or directional control at the front wheels (plow out). It is estimated that if all light vehicles on the road in the United States of America were equipped with ECS systems, 5,300 to 10,300 lives would be saved and 168,000 to 252,000 injuries would be prevented in all types of crashes annually. These would be the greatest benefits produced by any vehicle safety device since the introduction of seat belts.

Work on the proposed gtr for ESC systems would provide an opportunity to consider international safety concerns as well as available technological developments. This proposal reflects a recent proposal to establish an ESC standard in the United States of America. In light of its rulemaking proceeding, the United States of America believes that this would be an excellent opportunity for the international community to take the next step and develop and establish a gtr in this area.

B Description of the proposed regulation

The gtr would specify requirements for ESC systems to reduce the loss of control of vehicles and the risk of death and serious injury resulting from loss of control. The United States of America expects the gtr will specify the requirements for ESC systems, and require that vehicles be equipped with those systems, and meet dynamic performance tests.

Any element of the gtr that could not be resolved by the Working Party would be identified and dealt with in accordance with the protocol established by AC.3 and WP.29. The proposed gtr would be drafted in the format adopted by WP.29 (TRANS/WP.29/882).

C. Existing regulations and directives

The following regulations and standards would be taken into account during the development of the new gtr regarding ESC systems:

- (a) U.S. Code of Federal Regulations (CFR) Title 49: Transportation; Parts 571 and 585: Electronic Stability Control Systems (Proposed).
- (b) International Voluntary Standards – SAE J2564 revised in June 2004 – Automotive Stability Enhancement Systems.
