UK proposal R79

2.3.4.   "Advanced Driver Assistance Steering System" means a system, additional to the main steering system, that provides assistance to the driver in steering the vehicle but in which the driver remains at all times in primary control of the vehicle. It comprises one or both of the following functions, which are in addition considered Complex Electronic Control Systems:

2.3.4.1.   "Automatically commanded steering function" means the function [within a complex electronic control system] where actuation of the steering system can result from automatic evaluation of signals initiated on-board the vehicle, possibly in conjunction with passive infrastructure features, to generate continuous control action lasting more than one second or control actions recurring within two seconds of the last intervention, in order to assist the driver in following a particular path, in low speed manoeuvring or parking operations.

2.3.4.2.   "Corrective steering function" means the discontinuous control function [within a complex electronic control system] whereby, for a limited duration of less than one second and followed by no input for the following two seconds, changes to the steering angle of one or more wheels may result from the automatic evaluation of signals initiated on-board the vehicle, in order to maintain the basic desired path of the vehicle or to influence the vehicle's dynamic behaviour.

Systems that do not themselves positively actuate the steering system but that, possibly in conjunction with passive infrastructure features, simply warn the driver of a deviation from the ideal path of the vehicle, or of an unseen hazard, by means of a tactile warning transmitted through the steering control, are also considered to be corrective steering.

Justification: CSF/ACSF definitions.

It is necessary to quantify the difference between corrective steering and automatically commanded steering functions, in order to prevent "function creep" and distinguish functions which assist the driver by applying limited correction to the steering, from functions which effectively *drive* the vehicle and maintain the vehicle in the middle of the lane. This proposal is a first fairly crude step in attempting to provide quantitative criteria and we are open to discussions on the figures given.

This proposal also contains an addition of text to paragraph 2.3.4 and removal of text in strike through within square brackets in 2.3.4.1 and 2.3.4.2. This will ensure that Advanced Driver Assistance Systems (including CSF or ACSF, or both) are always considered to be Complex Systems, in line with what we believe was the original intent of the regulator. See also the proposal below.

Annex 6

2.3.   "Complex electronic vehicle control systems" are those electronic control systems which are subject to a hierarchy of control in which a driver-controlled function (e.g. steering) may be over-ridden by a higher level electronic control system/function. A function which is over-ridden becomes is considered part of the complex system.

Justification: Complex Electronic systems

It is necessary to clarify the definition of Complex Electronic Systems to ensure that any *automated* steering input (or tactile feedback through the steering wheel) which is not resulting from the driver turning the steering wheel is correctly assessed against Annex 6.

Trailer towing issue

5.6.1.1.11. The system shall perform a self-check shortly after moving off, and if objects (such as a trailer towed by the vehicle) are blocking the view from sensors that are part of the system, the system shall turn off.

Justification

Provisions are needed to govern the situation where a trailer is connected and blocks some sensors. This should also cover blocking for other reasons – e.g. a bicycle rack or any other unusual load is carried.

Software level

5.6.1.1.12. The system shall be capable of indicating the software level currently installed and in operation, as well as any previous software levels that were installed in the vehicle and the dates of updates. [This shall involve a maximum of [3] distinct actions].

Justification

As requested at the last meeting, it is important to be transparent about the software level currently installed in the vehicle. In some countries this may be relevant at PTI. This is necessary without having to delve deeply into the menu system.