

REPORT ON TRANSPORT AND SECURITY ACTIVITIES IN THE AREA OF ROAD VEHICLES

Highlights on regulatory initiatives by WP.29 and GRSG

Legal framework

Two Agreements (the 1958 and 1998 Geneva Agreements) administered by the World Forum for Harmonization of Vehicle Regulations (WP.29) provide the legal framework for the development of new regulations and for the harmonization of existing regulations regarding vehicle safety, environmental pollution, energy saving and anti-theft performance.

WP.29 contribution concerning transport security issues

At its March 2005 session, WP.29 requested the Working Party on General Safety Provisions (GRSG), to advance the development of the prescriptions regarding Vehicle Degradation Systems (VDS) (TRANS/WP.29/1039, para. 26). (VDS are systems fitted to a vehicle aimed at preventing and restricting the vehicle being driven away during unauthorized use. In the context of transport security, VDS can prevent the use of stolen vehicles as "car bombs" in explosive attacks).

Development of VDS work at GRSG

In **April 2002**, GRSG considered a proposal (TRANS/WP.29/GRSG/2001/16/Rev.1) by the United Kingdom (UK) introducing new provisions for vehicle degradation systems, which can be used to immobilize the vehicle after having being reported as a stolen vehicle in a controlled manner. The VDS should be activated by authorized people (e.g. police forces).

In **May 2003**, the expert from Germany introduced new provisions for the VDS (TRANS/WP.29/GRSG/2003/8) to be inserted into Regulation No. 97 (vehicle alarm systems). This new proposal superseded the initial proposal by the UK. The necessary introduction of a new part of Regulations Nos. 97 and 116 (protection of vehicles against unauthorized use) regulating the use of VDS to be harmonised was agreed to be an urgent task, because the market of such systems showed already a variety of such degradation, most of them being immobilising systems without considering any circumstances and the environmental conditions of the vehicles (i.e. traffic situation). This proposal aimed at giving approval authorities the possibility to approve well designed systems and reject/withdraw any other already existing systems showing dangerous behaviour.

In **October 2003**, GRSG considered an updated proposal by Germany on VDS (TRANS/WP.29/GRSG/2003/26)

In **April 2004**, GRSG agreed to set up an informal group of experts for the further development of the proposal. WP.29 gave its consent at its June 2004 session. The members of the informal group discussed in detail the proposal for amending the Regulations Nos.97 and 116. Different approaches from very low-level equipment and functions until very sophisticated and smart systems using GPS signals and detailed degradation measures were developed. The technical basis for the proposal was nearly finished. Reviewing the technical provisions lead more and more to the crucial aspects of use, misuse and security of VDS-Systems. The VDS informal group decided to ask the advice of the GRSG and Contracting Parties. The group agreed not to immobilize the vehicles straight away but to degrade the driving ability step by step.

In **October 2004**, GRSG noted concerns on the possible consequences of an external access to the vehicle electronic systems and on the incompatibility of the VDS with the 1968 Vienna Convention. The Vienna Convention establishes that "every driver shall at all times be able to control his vehicle". Nevertheless, GRSG agreed that the VDS informal group should continue its work. In the meantime, experts were requested to reflect on "vehicle tracking systems" that could be considered as an alternative to VDS.

In **April 2005**, the expert from Germany withdrew the proposal on VDS because the possible external remote access to vehicle electronic systems was not acceptable for his country (see informal document No. GRSG-88-17). He explained that VDS cannot be isolated from other vehicle electronic systems and, therefore, a remote intervention from outside on networked vehicle electronics (e.g. VDS) could allow possible abusive criminal attacks on the vehicle electronics (i.e. software viruses) and may lead to malfunctions of vital vehicle safety and emissions systems e.g. engine, steering controls, braking and stability systems. Since there are still big concerns about the misuse of remote access to vehicle and the necessity of secure and safe electronic encrypting and authorisation measures are not sufficient, the VDS informal group decided to wait until technical and much higher standards will be developed. Meanwhile, GRSG agreed that the VDS informal group should continue working to elaborate requirements for "Advanced Vehicle Security Systems (AVSS)", like vehicle tracking systems. The use of tracking systems today is not in the scope of any Regulation except the fulfilment of the provisions of Regulation No. 10 regarding Electromagnetic compatibility (EMC).

In **October 2005**, GRSG noted that the VDS informal group was awaiting inputs from the industry concerning vehicle tracking systems.

In **October 2006**, the Chairman of the informal group on AVSS informed GRSG that new information on VDS was received from Japan, but that the work of the informal group was still suspended, awaiting more inputs from its participants. The GRSG Chairman invited the experts to reflect on vehicle security issues and consider them at its next session in April 2007.

In **April and October 2007**, the-The secretariat informed GRSG about the decision of the Inland Transport Committee to set up an informal group on Inland Transport Security and that the Terms of Reference of such an informal group were endorsed by the ITC (ECE/TRANS/192, para. 19 and Annex I). Experts interested in the subject were invited to contact their focal point on the matter. GRSG noted that information on the activities of this informal group would be available at the following Transport Division website <http://www.unece.org/trans/main/its/its.html>.

Conclusions

The World Forum for Harmonization of Vehicle Regulations (WP.29) has adopted, in the framework of the 1958 Agreement, Regulations Nos. 18 (Protection against unauthorized use (anti-theft) of motor vehicles), 97 (Vehicle alarm systems (VAS) and 116 (Protection of motor vehicles against unauthorized use), which provide enough security to motor vehicles. The World Forum considers that the update of these Regulations to the technical progress will continue to guarantee such a security.

The informal group dealing with "Advanced Vehicle Security Systems (AVSS)" is awaiting inputs from its participants since October 2005 in order to be able to submit concrete proposals on this area. Since the group is not active, the World Forum recommends suspending working activities of the informal group. Once new inputs are available WP.29 may reconsider the reactivation of the informal group activities.