

# TACD

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CONSUMER DIALOGUE

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DES CONSOMMATEURS

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## VEHICLE SAFETY CONCERNS

(see Doc paper on Auto Safety Standards Doc Trade-2-99)

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### Introduction and background:

This paper has been drafted to identify the TACD's vehicle safety concerns.

These concerns should be considered in the current discussions taking place within the World Forum for Harmonization of Vehicle Regulations, WP.29, as it discusses its future work program following its establishment under the new global agreement last year.

However, we would recall that it is the primary responsibility of the respective governments of the US and in the EU to ensure the safety of their citizens. Global harmonization should not be used as an excuse to delay US or EU efforts to reduce traffic casualties, for example, the overdue EU Directive on Pedestrian Protection. Harmonization may also not be appropriate while specific US or EU requirements are under active consideration, such as with the US Frontal Impact Regulations. Furthermore, due to the differences in vehicle fleets and other legitimate considerations harmonization may not be appropriate at all and our scarce resources should not be wasted in futile efforts.

The TACD has already agreed on principles for auto standard harmonization at its second Meeting in Brussels and is currently discussing general principles for harmonization and this current paper must be read in conjunction with these other papers. The discussions within the TACD have emphasized in particular that harmonization should only be undertaken by governments where there is a clear benefit for consumers and that the harmonization and standards-setting process must respect current democratic rules and values. This paper should in no way be taken as a simple endorsement of WP.29. Previous experience with the work of WP.29 under the existing 1958 agreement raises severe doubts over the ability of the new WP.29 to respect these basic principles espoused by the TACD.

We could take as an example the draft frontal and side impact crash test regulations, which came out of WP.29 a few years ago. These draft regulations simply failed to meet public policy objectives and had to be amended substantially by the European Parliament before they could form the basis of the European Directives. Moreover some of the compromises that led to this situation were part of a non-transparent decision-making process that favored the industrial lobby.

The 1998 Agreement does contain safeguards over and above those in the 1958 Agreement, but the consumer groups remain to be convinced by practical demonstration that work under the Global Agreement will adhere to these high ideals.

Notwithstanding the foregoing comments it is clear, however, that for the new WP.29 to go any way towards addressing consumer issues it needs to understand the TACD concerns about issues that may be on its work program.

### **TACD concerns:**

#### **1. Standard child seat mounting interface**

One of the most important safety issues with respect to child restraints in cars is the problem of misuse. The performance of the child restraint in a crash is compromised by its not being fitted properly. In many cases it is extremely difficult, if not impossible, to actually fit the child restraint properly due to incompatibility problems between the restraint and the car seat belts which the restraint relies on at the moment. Considerable importance has been attached to the development of a universal mounting system for child restraints; one that would not rely on the adult seat belts in the car but on dedicated anchorage points. After some controversy and considerable delay during the development of such a system in the International Organization for Standardization (ISO, the international standards body) a final notice of rule-making has been issued by the US National Highway and Traffic Safety Administration (NHTSA.) This is in respect of a system, which will utilize two rigid anchorage points and one top tether. This appears to be the best compromise performance versus usability, and as such should be placed on the agenda for global harmonization. Attention will need to be given in particular on the usability issues, as the discussions so far have tended to focus on the engineering specifications of spacing and strength. With the US having announced their final rule now, there is an obvious opportunity to demonstrate to the consumer the value of global harmonization through a practical application in this new field. A standard harmonized universal mounting system for child restraints should therefore be amongst the list of items tackled early in the global agreement.

#### **2. Frontal impact protection**

The main issues are more refined criteria to control intrusion, more stringent injury criteria and further reduction of the risk of injury, together with efforts to improve compatibility between different classes within the vehicle fleet. Consumer groups have campaigned for a long time for an improvement in protection for vehicle occupants involved in frontal impacts and for this to be brought about through more realistic whole vehicle crash tests to be applied in the type approval regulations. More specifically consumers also want to see the question of intrusion addressed by a more realistic test that is introduced as this accounts for a large percentage of the serious injuries incurred by victims. The EU Frontal Impact Directive offers useful progress in this area, but it is up for review itself shortly and this would be a good time to review the test speed, the injury limits, and the need for additional criteria to minimize risk of occupant injury. The US safety standard is also under active consideration and consumer groups are concerned about the possibility of the 30 mph crash test speed being lowered. One specific area of concern where progress can be made is that of the impact of passive restraint systems on different types of occupants i.e. the problematic interaction between airbags and children/small adults (particularly females) in low speed crashes. Future regulation should seek to encourage the use of innovative technologies to provide effective solutions to improve occupant safety. Consideration should also be given to standardizing steering wheel adjustability and pedal adjusters in order to protect smaller persons. Small drivers find overwhelmingly that to adjust their seat for pedal use they are too close to the steering wheel.

#### **3. Side impact protection**

There is a need to consider the best way forward for a new side impact test dummy, already the subject of international co-operative work. Further consideration of the best barrier face characteristics, mode of test, and limits for risks of injury is also needed.

4. **Additional head protection for side impacts and rollovers (FMVSS 201)**

The US FMVSS 201 has a pole test that could be useful in assessing head protecting systems designed for use in side impacts. There is no equivalent EU directive-based test for head protection. The possible implementation of FMVSS 201 like-test for the car interior is currently under discussion in Europe.

5. **Rear impact protection**

There is need for improved regulation concerning head restraint and seat design to reduce the instance of neck strain in rear impact and the provision of head restraints in rear seating positions. The European head restraint requirements are considerably more demanding than those in the US in terms of height requirements. There is a growing body of evidence that dynamic testing of the seat and head restraint combination is necessary in both Europe and the US to optimize injury reduction.

6. **Under-run guards on trucks**

These are a major consumer demand. The introduction of front under-run guards is needed to allow the benefits of improved car design to be realized in car to truck accidents. Without such a measure, the increasingly sophisticated car restraint systems will continue to be defeated by the gross under-run and passenger compartment intrusion associated with truck collisions at present. There is an existing UN-ECE regulation on front under-run guards and this should be included in mandatory legislation. In addition an effort should be made to substantially improve rear under-run guard requirements.

7. **Pedestrian Protection and other vulnerable road users**

The main issue is to introduce measures to make cars less aggressive with respect to pedestrians and other unprotected road users. Technical solutions and design changes, if taken together, can meet all the different test procedures and reduce the often life-threatening or disabling injuries suffered by pedestrians in collisions. A complete set of tests has been drafted by the EEVC, but has not yet been introduced via legislation. These tests are used by the EuroNCAP consortium to provide consumer information on this aspect of car design. There is thus a growing body of technical information within the public domain that illustrates how little the car industry has contributed to pedestrian protection so far, and the suitability of the test methods for legislative use. Further fine-tuning of the test methods have recently been suggested by the EEVC.

8. **Seat strength**

Seat back and track failures continue to plague occupants. This is an unacceptable situation. Existing standards need to be upgraded in both the US and EU in order for occupants to receive a reasonable amount of protection during collisions. In addition the UN-ECE has developed a test method aimed at keeping additional loading from luggage off occupants in frontal impacts. Consumers International, which initiated the call for such requirements, has criticized the rigor of these tests adopted by the UN-ECE. In their current form they do not acknowledge that cars differ in their ability to carry luggage, and the regulation has performance criteria for rear seat deflection that are not in line with the space requirements of restrained children in the rear seat. Criteria should be further improved.

9. **Safety belts - characteristics**

Recent changes in ECE seat belt regulations have allowed the introduction of load limiting seat belts. Such designs are intended to reduce the incidence of belt induced injury to the chest. The reduced belt loads assume that there will be better load spreading achieved over the chest in vehicles equipped with airbags. Consumers International has pointed out that there needs to be some objective test evidence that the airbag and seat belt in a given car actually act together in this way. They have cited EuroNCAP test results that show that in some vehicles the airbags never load the chest at all. There is thus a fundamental assumption that needs to be checked out before belts that limit loads belts to very low levels are given legislative approval.

10. **Safety belts - elimination of lap belt only restraints from the new vehicle fleet**

Lap belt only restraints such as those found in center-rear seating positions in the car fleet do not give optimum protection. They are associated with lumbar spine and abdominal injuries. There is no technical reason why three point seat belts could not be mandated in the car fleet as is evidenced by the growing number of manufacturers who already provide such restraint systems in the center-rear positions in their cars.

11. **Provision of restraints in buses and coaches**

The consumer groups in Europe have lead the way in demanding high quality restraints in coaches and smaller passenger vehicles (minibuses). US consumer groups agree major progress needs to be made in this area.

12. **Airbag warning labels on cars and child restraints**

The US has led the way in mandating clear attention grabbing labels to warn of the fatal hazards associated with frontal protection airbags. Consumer groups are currently attempting to get harmonized legislation introduced in Europe on this issue. A harmonized approach has been adopted for the labeling of child restraints, and discussions are still under way for the clear labeling of vehicles. This is an obvious candidate for global harmonization, with the proviso that the text warning must be provided in at least one language of the country in which the vehicle is sold.

**Timescale:**

A list of consumer concerns for upward standard improvement will favor measures that demonstrably improve consumer safety.

**Technically achievable (2-3 years):**

- Standard child seat mounting interface. [Based on existing US requirements for rigid anchorages with improved usability requirements]
- Side impact protection (Pole test) [Based on existing US requirement]
- Additional head protection for side impacts and rollovers [Based on existing FMVSS 201 requirements]
- Rear impact protection (head restraint height requirements based on EC Directive)
- Under-run guards on trucks [Based on existing UN ECE requirements and EC Directive]
- Seat strength [Based on upgraded UN ECE regulation]
- Safety belts - characteristics [based on existing ECE regulation]
- Safety belts - elimination of lap belt only restraints from the new vehicle fleet. [Based on

- recent amendment to EC Directive]
- Provision of restraints in buses and coaches [Based on existing EC Directive]
- Airbag warning labels on cars and child restraints [Based on existing US and ECE requirements for child restraints and small amendment to US vehicle labeling requirements]

**Technically achievable (2-5 years):**

- Frontal impact protection [Based on upgrade of EC Directive]
- Pedestrian Protection [Based on updated EC draft directive]
- Rear impact protection (Dynamic requirements)

**Technically achievable (5 years+):**

- Side impact protection (Harmonized dummy, barrier, etc.)