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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

**World Forum for Harmonization of Vehicle Regulations**

One-hundred-and-forty-sixth session  
Geneva, 11-14 November 2008  
Item 17.2 of the provisional agenda

**PROGRESS ON THE DEVELOPMENT OF NEW GLOBAL TECHNICAL REGULATIONS  
AND ON THE AMENDMENTS OF GLOBAL TECHNICAL REGULATIONS**

Gtr No. 7 (Head restraints)

Amendments to the proposal to develop Phase II of gtr No. 7  
and to establish an informal group for its development

Submitted by the representative of the United States of America \*/

The text reproduced below was submitted by the representative of the United States of America and proposes amendments to the proposal to develop amendments to global technical regulation (gtr) No. 7 (ECE/TRANS/WP.29/2008/76). The proposed amendments are marked in bold and in strikethrough characters. This document is based on informal document No. WP.29-145-12.

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\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

Paragraphs 3. and 4., merge as new paragraph 3. and amend to read:

"3. **To address minor whiplash injuries (MAIS 1) that occur in low speed rear impact crashes ( $\Delta V \leq 18$  km/h)** ~~Regarding the assessment,~~ insurance industry groups, such as the International Insurance Whiplash Prevention Group (IIWPG) (Insurance Institute for Highway Safety (IIHS) and Thatcham), have already started dynamic **test evaluation of seats tests**. EuroNCAP plans to introduce dynamic whiplash test rating in 2008, and JNCAP plans to introduce it in 2009. However, the testing and evaluation methods vary from one programme to another. **Additionally**, the European Enhanced Vehicle-safety Committee (EEVC) Working Group 12 has been investigating the appropriate dynamic test **to address whiplash injuries in low speed crashes**, including the test procedure, injury criteria and the associated corridors for the BioRID II dummy."

Insert a new paragraph 4., to read:

"4. **At higher speed rear impact crashes ( $\Delta V \geq 18$  km/h), there are as many minor whiplash injuries as recorded in the low speed crashes and there are a significant number of more severe whiplash injuries (MAIS 2 and MAIS 3) occurring.<sup>2</sup> The United States of America is currently evaluating several dummies and a dynamic test that could address these injuries.**"

Paragraph 5., amend to read:

"5. **With regard to** ~~As regards~~ head restraint height, the informal group should decide:

- (a) How to define the effective height;
- (b) The height requirements."

Paragraph 6., amend to read:

"6. **With regard to** ~~As regards~~ the **low and higher speed** dynamic test, the informal group should:

- (a) Define test ...
- ...
- (d) Evaluate indicators of human body injury that reflect the whiplash mechanism;
- (i) ~~Measure the relative movements between the upper and lower parts of the neck and the forces applied to each of these parts;~~
- (e) ... studies."

Paragraph 7., amend to read:

"7. **With regard to** ~~As regards~~ evaluation, the informal group should evaluate the effects on reduction of injury and cost-effectiveness of the proposals."

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<sup>2</sup> <<http://www.sae.org/events/gim/presentations/2008moorhouse1.pdf>>

Paragraph 8., amend to read:

- "8. In the year 2008
- (a) June – Submission of Japan's official proposal for the development of the Head Restraint gtr Phase II at the WP.29 session
  - (b) **November – Approval by WP.29/AC.3**~~July – 1<sup>st</sup> informal group meeting~~
  - (c) Date to be determined – **1<sup>st</sup> 2<sup>nd</sup>** Informal group meeting
  - (d) December - 1<sup>st</sup> progress report submitted to GRSP"

Paragraph 9., amend to read:

- "9. In the year 2009
- (a) Date to be determined – **2<sup>nd</sup> 3<sup>rd</sup>** Informal group meeting
  - (b) May - 2<sup>nd</sup> Progress report and Head restraint height requirement draft submitted to GRSP
  - (c) Date to be determined – **3<sup>rd</sup> 4<sup>th</sup>** Informal group meeting
  - (d) December - 3<sup>rd</sup> Progress report submitted to GRSP"

Insert a new paragraph 10., to read:

- "10. In the year 2010**
- (a) **Date to be determined – 4th Informal group meeting**
  - (b) **May – 4th Progress report and Head restraint height requirement draft submitted to GRSP**
  - (d) **December – 5th Progress report submitted to GRSP"**

Paragraph 10. (former), renumber as paragraph 11, and amend to read:

- "11. After the year **2011 2010**
- (a) Date to be determined - Dynamic test requirement draft submitted to GRSP
  - (b) Date to be determined - gtr formal document submitted to GRSP
  - (c) Date to be determined - gtr will be presented for vote to the WP.29."

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