

## **Comments on ECE/TRANS/WP.29/GRSP/2012/14**

While we understand the concerns that gave rise to this proposal, the United States is not in a position to support this proposal at this time. We are currently conducting testing to evaluate differences between target/aim point and first point of contact with respect to testable area and HIC outcome. Until this testing is complete we cannot make a final decision on this proposal; however, the testing we have completed so far has resulted in some preliminary observations:

- Use of the laser method (target point) instead of first contact method (first point of contact) appears to reduce the testable zone by 9-10% on average. Given this difference, we are concerned that the “measuring point” as defined in the proposed amendment could reduce the stringency of the gtr in the most difficult hood areas (edges) to pass the HIC requirements, rather than just providing clarification.
- Section 3.30.1. appears to specify the measured point as being in a 2D plane parallel with the vehicle’s longitudinal centerline. While we did evaluate some of the test zones using this method, all of our head impact tests to date have used 3D measures (laser/target or first contact/point of first contact) and we wonder why this proposal is limiting the requirement to 2D. It is unclear whether this section is saying that if the “measuring point” cannot be feasibly reached by the headform, then the first point of contact should be used.
- The language of sections 7.3.3. and 7.4.3. are very confusing. Is this intended to require the actual impact location in the test to be within a 10 mm radius of the measured point of contact as determined in the test setup? The wording in this section should be simplified to prevent confusion. It appears the purpose of these sections is to say that laboratory’s setup method should be accurate. Perhaps a figure would help.
- Sections 7.3.2. and 7.4.2. are very subjective. What constitutes a “more severe second impact”? Is this based on a second peak acceleration greater than initial contact? Some discussion is necessary to provide a quantifiable guideline for this provision.
- Given the complexity of hood profiles for vehicles tested thus far, we are finding that the measuring point will coincide with 2D point of first contact, 3D point of first contact, or target point depending on the vehicle geometry at that location. We are weighing enforceability vs. maximizing benefit of the GTR in determining whether or not we agree with the proposal’s specification of impact point.

NHTSA anticipates completing its testing in the next few months, and should be in a position to either support this proposal, or suggest concrete changes which would allow us to do so, at the May 2013 session of GRSP.