Objectives

• Develop GTR7 (head restraints) considering the following issues:
  (a) The head restraint height of 850 mm;
  (b) The appropriate dynamic test, including the test procedure, injury criteria and the associated corridors for the Biofidelic Rear Impact Dummy (BioRID II).
  (WP29 - 143rd session November 2007)

• At the one-hundred-and-forty-ninth session, (November 2009), AC.3 agreed to:
  (a) focus on developing a low speed dynamic test using the BioRID II dummy, and,
  (b) as a first step regarding the head restraint height, to consider procedures for defining “effective height”.
Objectives cont.

• Detailed discussions on dummies will be conducted by a Technical Evaluation Group (TEG), which is to be established under the umbrella of the informal group.

• Drawings detailing the uniform specification of the test tools will be developed and provided to the Secretariat as reference material.
• 13 Meetings of the Informal Working Group
  Europe, Japan, United States.
  Nine held either in cooperation with the Pole Side Impact Group and the WorldSID group or in conjunction with GRSP.
• Supported by specialist meetings (TEG) chaired by Mr Lorenz (BASt).
• 7 Drafting meetings by WebEX
• Government/Administration representation:
  Australia; Canada; China; European Commission; Germany; Japan; Korea; Netherlands; United Kingdom; United States of America;

• Manufacturer representation:
  Autoliv; BMW; Chrysler; Daimler; Faurecia; Ford, GM, Honda; Hyundai; Lear Corporation; Mitsubishi; Nissan; Opel; Porsche; PSA Peugeot Citroen; Renault; Tata; Toyota; Volvo; VW;

• Technical input from:
  BAS; EEVC; European Commission; Euro NCAP; Humanetics; JARI/JASIC; KATRI; OSRP; PDB; TRL; VRTC.
Issues

Height
- Effective height measurement.
- Absolute height requirement.
- 3DH machine dimensions and tolerances.

BioRID
- Biofidelity, Repeatability and Reproducibility.
- Build Control and identification.
- Certification.
- Injury Criteria.
Effective height measurement.

- Effective height redefined.
- New procedure of coordinate measurement devised.
- Core text of the GTR and of Annex 1 amended.
- Consideration being given to developing procedure for backset measurement.
Absolute height requirement.

- Agreed to return this question to GRSP.
3DH machine dimensions and tolerances.

SAE Advises that:

J826 was never designed to be used with the HRMD.

Adding anything on to the J826 influences the validity of the resultant H-pt.

Limited control of dimensions prior 1989.

GTR7 based upon J826-1995

Biofidelity, Repeatability and Reproducibility.

- Broad agreement that BioRID has:
  - superior biofidelity,
  - good repeatability.
- Concerns about reproducibility between atd.

- Improved pelvis, torso flesh and spine bumper selection has delivered significant improvement in reproducibility.

- Latest results show BioRID to have as good or better R&R than HIII (when used in rear impact).
Informal document GRSP-53-14
(53rd GRSP, 13-17 May 2013, agenda item 2)

• Mutual Resolution published January 2013.
• Addendum 1 (BioRID) is reserved for BioRID.
• Drawing review completed by PDB and DfT. Discussions for drawing changes starting with manufacturer.
• User manual in preparation.
• Guidance document being prepared with chairs of Flex PLI and Child Seat IWG to support consistent approach.
Certification.

- Initial certification tests did not discriminate atd sufficiently well.
- Alternative tests in preparation but not yet agreed.
- Objective to allow assessment of spine bumpers without complete dismantling.
Injury Criteria

- Injury criteria a joint activity with JARI (volunteer tests) and VRTC (PMHS).
- PMHS tests have been subject to delay but now progressing – hope to have injury criteria by the end of summer.
- List of candidate injury criteria provided in GTR7-09-06 in the IWG tab.
Test Pulse

- Pulse severity aimed at low speed impacts but addresses principal injury severity.
- ATD R&R developed against this pulse.
Next Steps

- Two further WebEX before the summer to advance the drafting.
- IWG meeting early September to provide a formal paper to GRSP’s 54th session in December 2013.
- Injury criteria likely to be provided by an informal paper at the same session.
- Addendum 1 to the Mutual Resolution to be developed in parallel.