

Draft Minutes of 3rd WebEX Meeting of the BioRID TEG on 13th of July 2010

Drafted by: Bernd Lorenz (BAST), 2nd September 2010

Participants	Bernd Lorenz (BAST), Chair
	Agnes Kim (Ford)
	Alexander Schmitt (Humanetics COE)
	Andrea Lucchini (Toyota)
	Bernie Frost (DfT UK)
	Craig Foster (Humanetics)
	Christian Gehre (<i>PDB</i>)
	David Aylor (IIHS)
	Gerry Locke (Lear)
	Hiroyuki Asada (JASIC)
	Ines Levallois (Faurecia)
	Jerry Wang (Humanetics)
	Koshiro Ono (JARI)
	Masato Iwaoka (FIT Pacific)
	Markus Hartlieb (PDB/Daimler)
	Mike Beebe (Humanetics)
	Paul Depinet (Humanetics)
	Philipp Wernicke (PDB/BMW)
	Si Woo Kim (KATRI)
	<i>Yoshi-FITP</i>

The WebEX meeting was hosted by Humanetics.

1. Welcome

The chairman opened the meeting and welcomed the participants. He reminded the group that documents/presentations should be sent to him as soon as possible after the meetings so that they could be posted to UNECE. There are in some cases problems with large file sizes so that the documents need to be collected and to be sent via CD to Geneva which takes some time.

2. Approval of minutes

The minutes of 2nd WebEX Meeting were approved without changes.

3. Approval of agenda

The agenda was approved without changes.

4. Discussion

- **Summary of GRSP discussion and feedback from June WP.29 Meeting – implications on BioRID TEG**

Hiroyuki Asada presented GRSP's time schedule (<GRSP-47-17e rev1.doc>) and feedback from WP.29. (<WP29-151-13e.doc>).

Bernie Frost pointed out that in November 2010 the group has to report to WP.29 if the BioRID is ready for regulation. There needs to be confidence that the dummy is ready. This is why the September meeting is of particular importance.

Markus Hartlieb asked if the performance criteria (dynamic backset as proposed by EEVC and NIC, upper & lower Fx, Fz, May) proposed in this document are already decided. Both, Mr. Frost and Mr. Asada said that for the time being both proposals should be considered by the TEG with regard to the robustness of the dummy readings.

Japan proposed another step forward to allow the use of a more inclined position of the spine p. ex. for dynamic testing of seats of vans or some commercial vehicles. It was agreed that it seems to be too premature to propose the use of the current BioRID for more inclined seating angles (around 15 degree) at the current status. For the time being the group should set the focus of its activities with regard to R & R testing on the standard seating angle but keep an eye on further implications. Within this context Agnes Kim asked for the results of biofidelity tests. Mr. Asada said that in their studies they found issues with regard to the interaction of the jacket under more inclined conditions.

- **Presentation of current activities**

Status of drawing review – clarification of build level

Humanetics announced that a draft set of drawings is ready. The drawings shall be sent to UNECE as soon as a complete set is available. A question was raised with regard to the numbering of the drawings. TEG has the freedom to decide how the drawings are numbered.

Note: meanwhile the drawings are available on the UNECE-website following the link

http://www.unece.org/trans/main/wp29/wp29wgs/wp29grsp/gtr7phase2_3_Drawing_package.html?expandable=0&subexpandable=4

Certification sled and corridors and R & R testing

Paul Depinet presented the current status of Humanetics' work on the BioRID. They have run tests according to the new calibration method with pulses as proposed by Japan.

Mr. Asada presented the results of their investigations. He showed a comparison of neck loads during calibration and seat tests. It was noted that the neck forces of the seat test series presented by Mr. Asada are on a quite high level compared to results from consumer tests like

those published by Euro NCAP or IIWPG. The question was raised which seats had been used for the test series. IIHS agreed to provide data from own seat tests to Japan.

Also, it was noted that the use of foam as a surrogate for head restraint padding can raise some problems as air humidity plays an important role on the damping/material characteristics. If such type of foam is used it should be sealed.

An analysis of the data led to the hypothesis that differences in the stiffness of the jacket could have a major influence on the results. Humanetics is looking more closely into this issue and is in the process of developing a certification test for the jacket and refining the tolerances. There are also indications that there might be some differences within the heads which potentially have an effect on the results.

Koshiru Ono mentioned that it could also depend on other reasons and would like to have a closer look at the data.

The influence of water filling in the BioRID's belly in the first contact phase seems to be low. There might be more likely an influence in the rebound phase.

Humanetics reported that they have seen no significant influence of the damper oil quantity (no large difference between 60 % and full quantity).

KATRI made a proposal for a modification of BioRID II-neck bumpers. It was felt that this is no longer an issue and might be linked to an error during clueing.

PDB presented first findings from their study on "possible causes for the poor reproducibility of neck forces and moments of the BioRID-II". The first findings showed that cable coating did not resolve the problem but seems to lead to better control of friction. The results are leading to the conclusion that the friction between head skin and head restraint has a clear influence on the variation of neck loads.

PDB announced to present further results at the next meeting.

Latest status of HRMD & HPM

It was reported that VDA has withdrawn its proposal due to concerns raised by SAE. Agnes Kim reported that SAE will have a close look from now on this issue. IIWPG reported problems with the certification of the HRMD/HPC, too. There are commercial implications linked to the whole issue as the HPM is sold by SAE and the HRMD by ICBC. TEG shall be kept informed about status of activities.

5. Next Meeting(s)

Next WebEx meeting t.b.d.: after summer break (note: scheduled on 7th of September 2010)

Joint meeting with GTR No. 7 group on 21./22. September in Berlin, German Ministry of Transport