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WorldSID 5th TEG: Status

6th Meeting

Pole Side Impact GTR

Munich, Germany

June 20, 2012

Bruce R. Donnelly, Ph.D. - Chair

History

- 1st meeting - November 10, 2011, Dearborn, MI.
- 2nd meeting - January 11, 2012, web only meeting
- 3rd meeting - March 16, 2012, London, UK
- 3rd meeting - April 23, 2012, Plymouth, MI
- 5th meeting - June 14, 2012, Plymouth, MI

- 6th meeting - July 26, 2012, Plymouth, MI
- 7th meeting – September 2012 ? TBD

Organization

- **Terms of Reference**
  - Submitted to parent group
- **E-mail list constructed**
  - 57 participants (approx. 1/3 are active)
- **Data archive**
  - UVa Colab site (data & presentations)
- **Collaboration with ISO WG6**
  - Injury criteria development (CEESAR-Petitjean/Troiselle)
- **Collaboration with ISO 50th Group**
  - Concurrent meetings

Dummy Population

▪ APROSYS	2	older, refurb. for TRL
▪ Ford	1	older, not updated
▪ Transport Canada	1	several crash tests
▪ NHTSA/VRTC	3 + 1 on order	
▪ GM	1	
Total	8 +1	

Testing

- **Humanetics**
  - certification testing
- **TC**
  - crash testing
- **NHTSA/VRTC**
  - Development of scaled biofidelity targets for 5th
  - biofidelity & certification pendulum testing
- **TRL (EC)**
  - pendulum & sled testing
  - biofidelity & trouble shooting (IRTRACC, shoulder, pelvis, abdom./flesh)
- **OSRP testing - planned**
  - biofidelity testing

WorldSID 5th Issues

- **Durability?**
  - Is 8.9 m/sec reasonable?
    - Yes, like SID IIs, survival but no measurement
    - TRL testing indicates 6.3 m/sec max. thorax displacement
- **Non-reproducibility**
  - VRTC thorax certification responses among dummies
- **Shoulder contact with neck**
  - Vertical motion, load cell hard contact with neck bracket
- **Pelvis anterior flesh/abdomen rib #2 interaction**
  - Reduced rib stroke - A problem? Not if repeatable?
- **Pelvis lumbar & S-I load cell contact** ← *Problem!*
  - Lumbar load bridge – redesign necessary!
- **Material changes**
  - Head, pelvis – ureol, hyperlast (5th & 50th dummies)

Schedule

Most issues are manageable, except -

- **Pelvis redesign expected to take more than one year!**
  - Little substantive work can be done without pelvis
  - Sled testing, R&R, pelvis biofidelity & cert. spec. on hold
  - Injury criteria on hold
- **TEG is searching for a shorter/better solution**
  - No other solution evident at this time

Thank you

Questions?