



The Quarterly Newsletter of the Snell Memorial Foundation

This is the forty sixth of the Foundation's newsletters to the helmet manufacturing industry. The forty fifth was sent out in April 2007. Comments and items for inclusion in subsequent issues are invited.

Snell 2010 Standards

The Foundation has circulated another M2010 draft. Snell SA2010 and K2010 will follow much the same provisions so all who are interested in these standards are also urged to review this new draft. M2010 represents a considerable break from current practice and will pose a host of new challenges to the helmet industry and to the Foundation. For this reason we urgently seek the best advice of everyone in the helmet community. Firstly so that we get the details right but also so that we can complete the drafting process quickly and manufacturers can begin the design and development of 2010 helmets.

The changes proposed for Snell 2010 standards are in response to recent anthropometric measurements of the human head. Although the new requirements are expected to force a redesign of current headgear, particularly in the smaller sizes, Snell M2010 helmets may also be able to meet the European demands in ECE 22-05. For the first time in many years, manufacturers may be able to build the same helmets for distribution throughout Europe and North America. The newest M2010 draft has been posted on the Snell web site: www.smf.org.

Head Anthropometry

Dr. Randal P. Ching of the University of Washington has written a technical brief detailing the results of his study of the physical parameters of the human head. These parameters are of particular interest in helmet testing since the mass of the head bears directly on how it will load the helmet during impact and how the helmet will transmit shock to the head.

Dr. Ching's findings bear strongly on the changes being considered for the Snell M2010, SA2010 and K2010 standards. His technical brief will be posted on the Snell web site.

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Certification Samples

In the future, manufacturers are urged to submit samples in ready for sale condition when they apply for certification. The laboratory needs complete samples if they are to get accurate weights. The Foundation demands complete samples in order to confirm that the helmets tested here are the same as those that will later be sold to the public.

So if the configuration calls for a face shield or a visor, the samples must include face shields or visors. If the finished helmet will be painted, the samples must be painted. If the shells have ports for ventilation, the liners must be finished correspondingly. Although reasonable allowances will be made for missing labels, if any sample in a certification set is otherwise incomplete, the technicians may reject the entire set.

Interlab Comparison

In order to help commercial and in-house labs evaluate their Snell test capabilities and to establish reasonable confidence in our own capabilities, we propose to organize a series of round robin tests. At first, we intend to look at impact testing and face shield penetration but, in the future, we hope to cover all the tests in the Snell standards.

We are preparing a more detailed announcement to be circulated to all the Snell certified manufacturers and to anyone else who is interested. If you would like to receive a copy of the announcement and an invitation to participate, please contact Ed Becker.

Snell/FIA Children's Helmet Effort

Work continues on the joint Snell/FIA standard for children's motor sports helmets. A copy of the most recent draft is posted on the Snell web site www.smf.org.

The CMH2007 will be similar to current Snell certification programs and will include an RST enforcement component. For certification testing, it is expected that manufacturers will be able to submit

helmets to certain test labs in Europe or to the Snell laboratory in California but all test results will be reviewed at the Snell office in California before certification is awarded. Certification labels will be available from the Snell office. The projected label fee is expected to be \$2.00, \$1.00 of which will go to Snell and the other to FIA.

FIA Super Helmet Testing

The Foundation has made a lot of progress toward FIA 8860 and FIA 8858 capability. These FIA standards apply to Formula 1 helmets and to HANS® tether hardware. The Snell lab expects to receive FIA authorization to test to these standards later this year.

Comments and Suggestions

Please submit any comments, suggestions or complaints about any aspect of the Snell programs or services to Ed Becker.

China Trip

From May 25th to June 9th Dr. Daniel Thomas, Ed Becker and Hong Zhang visited nine helmet manufacturers in Beijing, Shanghai and Tsingdao, China. We gained more understanding of corporate structures, current operations and conditions at the factories. In addition to Snell policies, testing procedures, equipment calibration, much of the discussion focused on the Draft M2010.

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