



ISSUE 33

November 6, 2002

The Quarterly Newsletter of the Snell Memorial Foundation

This is the thirty-third of the Foundation's quarterly newsletters to the helmet manufacturing industry. The thirty-second was sent out in June. Comments and items for inclusion in subsequent issues are invited.

In This Issue

1. [Board Meeting](#)
2. [RST Policy Proposals](#)
3. [New Labeling Requirement](#)
4. [250 Joule Impact Capability](#)
5. [Abbreviated Testing](#)
6. [Children's Motorsports Headgear](#)
7. [DOT Revisions](#)
8. [SMSA](#)
9. [Who to Contact at Snell](#)

Board Meeting

The Foundation's directors met October 19, 2002, at the Sacramento offices. Among the items discussed were: new policies for handling helmet models found non-compliant in the RST program, a new labeling requirement for certified headgear, a symposium sometime next spring to discuss head protection for children participating in motor sports and modifications to the Snell lab facilities to enable test impacts on the order of 250 joules (10 meters per second). See items later in this news letter

RST Policy Proposals

The RST program is the means by which the Foundation enforces its standards. We seek out and purchase units of Snell certified headgear from the same dealers and distributors as everyone else, bring them into the laboratory and test them. A test report is prepared and sent to the manufacturer along with a bill for the testing and for the costs of obtaining the sample.

If the helmet meets all test requirements, all is well until the next round of RST. If it fails, we purchase three more of the same model and size and test them for confirmation. If all of these pass, the first result is dismissed as a test anomaly, that is: we decide the helmet was good and the test was questionable. But if any one of these three also fails we rule that the test was good and the helmet bad. The matter is passed up to a specially designated board member who reviews the findings and determines what corrective actions are necessary.

If the situation warrants, this board member will go to the rest of board to recommend decertification of the model or of the manufacturer, perhaps even urge that the Foundation issue public warnings. However, the new policy applies to much less serious situations, findings in which the helmet's performance is slightly but measurably below the requirements. That is: what we must do when a headgear that once performed at A+ levels now only gets an A-.

The distinction is slight. If I'm shopping for a helmet, I'll look for an A+ but if I already own an A-, I'll wear it happily and save my money for something else. However, as a helmet certifier, the Foundation must do everything reasonable to ensure that the Snell label goes only into A+ units.

The directors spent much of the recent meeting proposing and discussing policies to reinforce the standards and the programs and to keep the industry well aware of the line that separates Snell certified helmets from all the rest. The final proposals include time limits for re-certification, provisions for immediate RST sampling of re-certified production, the addition of a "certified through" date to the posted certified products lists. Furthermore, models failing a second time may be removed from lists and denied re-certification for up to a year.

The directors also wish to consider the opinion and advice of industry leaders before formally adopting any new policy. These proposals will be written up and circulated to certified manufacturers and others for comment.

New Labeling Requirement

The directors are considering a new labeling requirement. Occasionally, a helmet is brought in for random sample testing under brand and model names that we've never heard before. The only familiar aspect of these mystery helmets is the Snell certification label. Although we can identify the manufacturer, we must usually resort to FAXes, phone calls and e-mail to determine the original model name under which the helmet was certified.

For this reason, the staff here has asked the directors to consider that every Snell certified helmet bear a Certification I.D. on one of its labels that identifies the specific test by which the units were certified. This I.D. consists of nine characters identifying the lab, test number and year of the testing. It is the same I.D. that appears in the lower right hand corner of each Snell Certificate that is prepared and sent out each time a set of helmets passes certification testing.

This proposal will also be written up and sent out for review before it is adopted and a date set for its implementation.

250 Joule Impact Capability

The Foundation's SA2000 and M2000 Standards call out test impacts of 150 joules followed by a second impact at 110 joules. Transport Research Laboratory in England is urging a single impact at about 250 joules. Although the Foundation plans to leave the first impact at 150 joules for the 2005 standards, the TRL proposal is receiving serious consideration at FIA and elsewhere. Clearly, some one must perform some 250 joule impacts on current headgear in order to determine the implications for current helmet technology and current testing technology.

The most serious limitation is ceiling height. Snell's current capability is about 3.2 meters but 250 joules requires about 5.25 meters with current twin wire equipment. So we're raising the roof above two of our test stands. We expect to be ready to test sometime early next year. We hope to establish what sorts of results Snell Certified manufacturers might expect in testing under the TRL protocol as well as whether the current test hardware can stand up to the additional stresses of this higher energy testing.

Abbreviated Testing

The Snell laboratory will no longer terminate certification testing after an early failure in order to charge reduced test fees. The lab personnel have pointed out that a substantial portion of the effort has been completed before the impact testing ever starts. If a manufacturer suspects his certification samples will fail, he should go back to the drawing board.

Manufacturers requiring developmental testing can request our prototype test services. We will test the helmet according to the manufacturer's specific instructions and provide as complete a test report as we can within our competence. However, we will not use these prototype results to evaluate a helmet for certification. There, we require a full set of samples and we select the test conditions and configurations.

We are professionally obliged to doubt every helmet model submitted for certification but there should be no doubts back at the factory.

Children's Motorsports Headgear

During the recent manufacturers meeting, Doctor Fenner described the current Snell quandary over standards for children's motorsports helmets. Although many children have hat sizes in the adult range, they may not have the muscle strength to support adult helmets, particularly Snell certified adult motorcycle, karting and auto racing helmets. The concern is not that an overly heavy helmet will increase the risk of injury in a crash but that the child wearing one will not be able to maintain adequate control of his vehicle to avoid crashes. Lighter headgear for children seem a reasonable solution but lighter helmets must certainly be less protective.

The principal questions are: what is a reasonable upper bound for the weight of a child's helmet? What is the upper limit on protective capability this weight limit implies? At what point in the paring away of weight and protective capability should the Foundation cease recommending headgear and advise against children's motorsports, at least until the child grows stronger. Right now, no one seems to have any answers.

DOT Revision



The revision to the Federal Motor Vehicle Safety Standard 218 appears to be stalled. An announcement had seemed imminent since late 1998 but no one now seems willing or able to make any projections.

The DOT Motorcycle Helmet Standard is a mandatory minimum for headgear sold for motorcycle use throughout the United States. It is specified in most U.S. jurisdictions where motorcycle helmet use is required. Recently, Canada also requires that motorcyclists wear either DOT or Snell certified motorcycle helmets.

It has been twenty-eight years since FMVSS 218 was first put into effect, plenty of time to discover its shortcomings and consider improvements. The directors and staff here at the Foundation are ready with suggestions and, it's a certainty, so are a lot of others.

Along with riders and traffic authorities throughout North America, and manufacturers and technical and medical experts throughout the world, we await the first draft of the new, improved FMVSS 218. It will be the opening gun in what should be a lively series of rounds of public comment and re-drafts. Lets hope that every aspect of the standard and its administration will be up for discussion and that it will be soon.



The National Association of State Motorcycle Safety Administrators (SMSA) will be meeting in Boise, Idaho, August 15-17, 2002. The membership of this organization is engaged in organizing and conducting classes in ridership training in most of these United States. The summer meeting is attended by the officers of this group but also by the rank and file instructors, many of whom bike in from great distances. Contact information for the SMSA is:

SMSA
7881 S. Wellington St.
Centennial, CO 80122-3193
Tel: (303) 797-2318
FAX: (303) 703-3569
e-mail smsabusinessmgr@hotmail.com
web: www.smsa.org

It has been estimated that for novice riders, a ridership training course is the equivalent of six months of saddle motorcycle experience. Since the first six months in a rider's career are the most dangerous, there are waiting lists for these courses. Not only are people willing to work through the classes and field exercises, many are putting off purchases of bikes and equipment until they've learned what gear to buy.

There are few, if any, wealthy ridership training instructors. Most have regular jobs and teach in their spare time for little more reward than their love of the sport. To assist in this worthwhile effort, some enlightened businesses have made donations directly to SMSA, provided motorcycle accessories for door prizes at the summer meetings and set up steep discount programs for the instructors. Other, harder nosed businessmen provide door prizes and set up discount programs in order to get their gear onto the instructors and out in front of classrooms full of novices. Impressionable novices, I might add, with lots of disposable income and desperate for advice on how to spend it.

Who to Contact at Snell

Snell Memorial Foundation, Inc.
 3628 Madison Avenue, Suite 11
 North Highlands, CA 95660
 Phone: 1-888-SNELL99 (1-888-763-5599) or 916-331-5073
 Fax: 916-331-0359

E-mail		
	General Information	info@smf.org
Internet & Web Site	Steve Johnson	sdj@smf.org
Laboratory & Testing	Gib Brown	gib@smf.org
	Randy McCarty	randy@smf.org
	James Barnes	jim@smf.org
	Allen Harris	allen@smf.org

Admin & Decal Orders	Bonnie Adams	bonnie@smf.org
Business	Steve Johnson	sdj@smf.org
Snell Safety Education Center	Hong Zhang	hong@smf.org
All Other	Ed Becker	ed@smf.org

Editor: Edward Becker, Executive Director

