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The Quarterly Newsletter of the Snell Memorial Foundation

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

Manufacturers' Meeting

The most recent manufacturers' meeting took place at the Hampton Inn in downtown Indianapolis on February 12, the day before the opening of the Powersports Expo. The Foundation was represented by Doctor Fenner, the president of the Foundation's board of directors and by Steve Johnson and Ed Becker. The meeting was devoted to discussion of drafts of the M2000 and SA2000 draft standards and of the awaited rulemaking activity for the DOT motorcycle helmet standard.

M2000 & SA2000 Drafts

The first drafts of the M2000 and SA2000 Standards were circulated for comment recently. The proposed changes include a general increase in the impact test area and an increase in the shock loading for the positional stability test.

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The changes in the impact test area, particularly in light of the recent change in impact drop masses, may have some unanticipated consequences. Manufacturers of Snell certified motorcycle and auto racing helmets are urged to review these changes carefully and send comments and advice to this office.

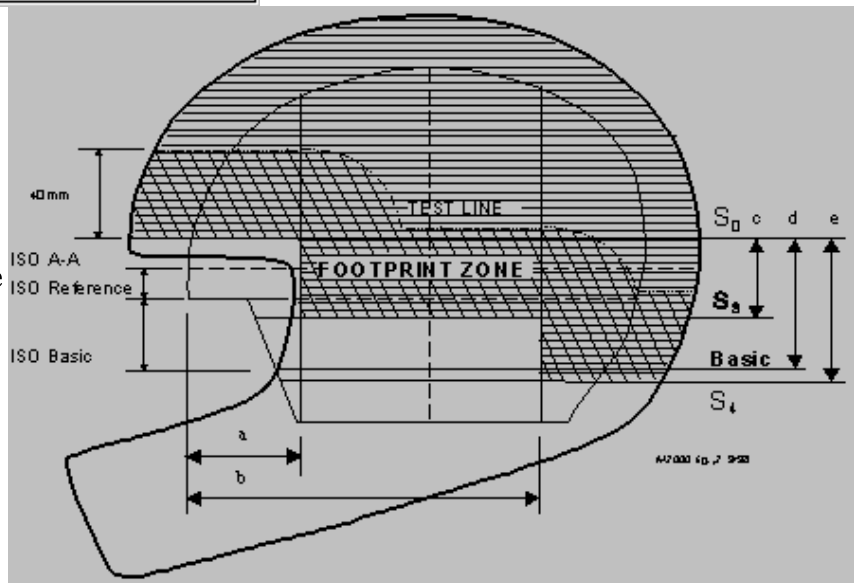
Presently, we expect to distribute the next drafts in late May of this year. The May drafts are not expected to change significantly when they are published in their final forms next August.

Certification testing to the new standards will begin after the second drafts are distributed. However, M2000 and SA2000 certification may not be claimed until the fall of the year 2000. Helmets meeting the new requirements will be certified to the current '95 Standards until the new Standards take effect.

M2000 and SA2000 certification labels will not be available until sometime after

August of 2000. Once the new labels are available, we will stop shipment of the '95 labels at the same time but manufacturers may continue to use existing stocks of the '95 labels in their Certified helmets until March of 2001. We hope in this way to make the new labels available for the beginning of the production cycle for the 2001 season.

All recommendations regarding the M2000 and SA2000 drafts or the implementation schedule will be welcomed. It is essential to transmit them to this office by post, FAX or e-mail as quickly as possible so that they can receive serious consideration in time for the next drafts in May.



Bicycle Helmet Standards

The Consumer Product Safety Commission Bicycle Helmet Safety Standard takes effect very shortly. All bicycle helmets manufactured after March 10, 1999, and distributed for sale in the United States must be certified to CPSC requirements by their US manufacturers or importers. Bicycle helmets manufactured before this date but later than 1994 must still meet the requirements of one of the interim bicycle helmet standards which include ANSI Z90.4-1994, ASTM 1447, Snell B-90, B-95 or N-94, or the CPSC Standard in its final form.

The Foundation modified the B-90, B-95 and N-94 Standards early last year in order to assist manufacturers to demonstrate CPSC performance requirements. Wherever the Snell Standards were demonstrably more demanding than CPSC, the requirements remained the same but in those areas where CPSC exceeded Snell demands or where the comparison was unclear, the revised Snell Standards adopted the CPSC provisions directly.

For example, CPSC demands slightly more coverage than Snell B-90 and slightly less than B-95 for persons age 5 and older. B90A, the revised B-90 standard now calls out a test line comparable to CPSC while the B95A and N94A coverages continue unchanged. The CPSC coverage requirements for young children and toddlers exceeded most all previous standards. B90C and B95C have both adopted the CPSC coverage requirements for persons age 1 and older (extended coverage).

B90A, B90C, B95A, B95C, and N94A have all superseded the previous B-90, B-95 and N-94 Standards as of January 1, 1999.

No sweeping changes are projected for 2000. The projected B2000 Standard will be identical to B95A while B95C will continue as B2000C. B90A and B90C will continue under their present designations at least until 2003.

Bicycle Helmet Labels



Although the B-90, B-95 and N-94 Standards were all superseded as of January 1, 1999, by CPSC compliant revisions, Snell certified bicycle helmets may continue to be labeled with the familiar B-90, B-95 and N-94 labels. However, manufacturers of Snell certified bicycle helmets have another option. The CPSC requirements include a number of labels and warnings many of which have been incorporated into new B90A, B90C and B95A certification labels.

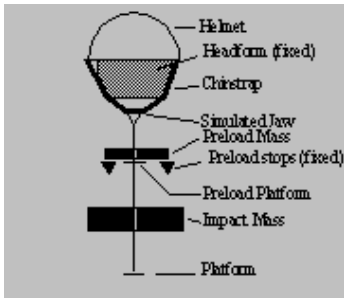
Please note: CPSC also requires manufacturer and distributor specific labels. The new Snell labels may ease the label problem but they will not solve it completely. Bicycle helmet manufacturers and distributors should review CPSC requirements carefully.

Manufacturers may use either the older labels or the new labels at their discretion in their appropriately certified products. Stocks of old labels may be exchanged for new ones on a ten for eight basis.

Retention Test Analysis

The revisions to the Snell bicycle helmet standards included a change in the retention test procedures. The procedures and equipment used originally were replaced with the equipment and procedures in the CPSC standard in order to resolve any uncertainty over which was the more demanding test. However, we have completed a series of tests on comparable helmets and on a device that simulates the force versus stretch behavior of current bicycle helmets in a reliable and repeatable manner.

The analysis indicates that the former Snell test subjected the chinstrap, buckle and anchors to consistently higher levels of peak tension but that the CPSC procedure produced greater elongation. These seemingly contradictory observations arise because the Snell procedures draw about 7 mm more slack out of the retention systems before the test is performed. As a result, a retention system may pass the CPSC test and still break under Snell test stresses but it could pass the Snell test and still fail the



CPSC stretch criterion. A more complete account is available at the Foundation's website.

Karting Helmet Standard

◆ The Foundation has completed drafting of a new standard which describes headgear for use in kart racing. This K-98 standard includes all the

requirements of the SA-95 standard for auto racing helmets except those applying to flame resistance. Headgear currently certified to the Foundation's SA-95 standard meet all the requirements for certification to K-98 and will be added to the lists of K-98 Certified models at the manufacturer's request.

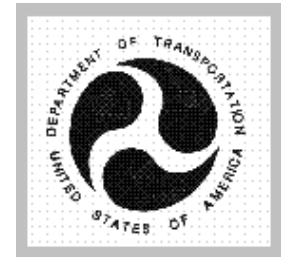


The K-98 Standard is now available in booklet form is also available on the Foundations Internet web site. K-98 Certification labels are available to qualified manufacturers at a fee of \$1.00 each. The label color is light blue.

DOT (FMVSS 218)

Qualification Testing

The American Association for Laboratory Accreditation has auted and accredited the Snell California laboratory's DOT testing capability. The finding means that the lab's DOT testing service meets ISO Guide 25 requirements for quality.



The Foundation does not require DOT compliance for M-95 certification but, as a service to our clients, we are now able to perform the required testing and maintain the test documentation. Certified manufacturers will not be required to submit for DOT qualification testing. However, manufacturers who wish to, may submit samples of their Snell M-95 certified helmets for qualification to DOT or submit samples for both Snell M-95 and DOT certification

Snell Web Site



The Snell Foundation World Wide Web Site, <http://www.smf.org>, now includes more than thirty pages of helmet and head protection information. There are descriptions of the Foundation and its certification programs, lists of certified products, the texts of Snell Standards and drafts and links to other web sites of interest.

One of the primary purposes of the site is to acquaint the public with the importance of selecting and wearing the most effective protective headgear. Once the Foundation tests and certifies a helmet, we want people to wear it. If you manufacture or sell Snell certified helmets and you maintain an Internet web site, please contact Mr. Brown to see about establishing a link.

Ski Helmet Standards



Vigor Sports is currently marketing the first helmet models certified to the Foundation's 1998 Standard for Protective Headgear for Use in Recreational Skiing and Snowboarding (RS-98).

RS-98 certification signifies significantly greater protection than called out in European Norms to which many popular ski helmets are designed. The Foundation urges skiers and snowboarders to seek out and use appropriate protective headgear and proudly recommends the **Vigor Sports S-100** and **S-300** to their attention.

All manufacturers of ski and snowboard helmets are invited to submit helmet samples for testing. Please contact the North Highlands office for further information.

DOT Rulemaking

The Department of Transportation expects to begin the process of revising its mandatory motorcycle helmet safety standard sometime in 1999. DOT will publish a draft standard and interested parties will be allowed a sixty day comment period to respond to the proposed changes. Although no sweeping changes are expected it behooves everyone involved with motorcycle helmets to participate. The next opportunity may be twenty-five years away.

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