



ASTM F08 Committee on
Sports Equipment and Facilities
Denver, Colorado
May 15-20, 1995

X 6/12/95 ✓

Log of Meeting

Date of Log Entry: May 26, 1995
Source of Log Entry: Susan Kyle, Ph.D., Project Manager *sbk*
Baseball Protective Equipment Project
CPSC
Attendees: Available when ASTM minutes published

Summary of Meeting

The activities of ASTM F08 Committee on Sports Equipment and Facilities at its May 1995 meeting which are relevant to the Baseball Protective Equipment Project are reported below.

"Soft" Baseballs/Softballs

Task Force of Subcommittee F08.26 on Baseball and Softball Equipment

The task force considered five comments received, including two negative votes, on the first Subcommittee balloting of Test Method for Determining the Coefficient of Restitution of Softballs. Revisions were made and the revised test method will be balloted at the next meeting of the subcommittee which is scheduled for July in Chicago in conjunction with the NSGA meeting.

The task group also voted to send a proposed Test Method for Compression-Displacement of Baseballs and Softballs to the subcommittee for ballot in July.

Henry Scarton, Ph.D., Professor, Rensselaer Polytechnic Institute, described a test method he has developed for determining the dynamic hardness of baseballs and softballs.

Jess Heald will investigate whether the NOCSAE standard for reduced injury baseballs/softballs can be used as a basis for consideration for an ASTM standard for reduced injury balls.

Next meeting of the task force will be in July in Chicago in conjunction with the NSGA industry show.

Batters' Helmet Faceguards

Subcommittee F08.53 Headgear, Task Force F08.53.04 Baseball/Softball Headgear

Dr. Robert Crow, manufacturer of the C-Flap face guard, presented information on visual limitations imposed by face guards. It was generally agreed by members of the task force that specifications about acceptable visual field limitation should be part of the face guard standard and that the ice hockey face guard standard would provide reasonable specifications.

In addition, it was agreed that the ice hockey face guard specifications would also be used to define a "no-contact" area of the face. With this definition of the "no-contact" area, face guards could be tested under field conditions (i.e., testing would be conducted on a faceguard attached to a helmet without a chinstrap or other device to restrain rotation of the helmet/faceguard).

Various task force members volunteered to provide wording on these specifications to Mark Wolverton of Riddell, who will compile the changes and circulate a new draft to members by June

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15. The next meeting of the task force will take place in July in Chicago in conjunction with the NSGA industry show.

Mike Aden of Schutt Sports Group will step down as co-chair of the task force. A non-manufacturer was sought as replacement. Sue Kyle, from CPSC, will co-chair, if approved.

Bases

Subcommittee F08.26 Baseball & Softball Equipment, Task Force

This task force did not meet. Bud Cosgrove gave a brief report on the February meeting held in Chicago. It had been agreed that fixed bases still have a place in the game. There was discussion as to whether there would have to be several different standards developed to take into account the release, impact, and low-silhouette types of bases. The task group will meet in Chicago in July in conjunction with the NSGA meeting.

Protective Padding for Batters

Commotio Cordis Conference

Barry Maron, M.D., Cardiologist, Cardiovascular Research Division, Minneapolis Heart Institute Foundation, presented medical analysis of 25 cases for which he was able to obtain fairly detailed information. These results will be published in the New England Journal of Medicine in September or October.

Michael Reiter, M.D., Ph.D., Cardiac Electrophysiology Specialist, University of Colorado Medical School discussed possible mechanisms for commotio cordis, including ventricular fibrillation, probably mediated by premature ventricular contractions caused by the chest impact. Other possible mechanisms were also discussed.

Reginald Washington, M.D., Pediatric Cardiologist, University of Colorado Medical School, reported on the deliberations of committees of the American College of Sports Medicine (ACSM), the American Academy of Pediatrics (AAP), and the American College of Cardiology (ACC) on the issue of commotio cordis. None of these organizations recommends the use of chest protection for batters at this time. ACSM cites the need for further research into the issue.

Joseph J. Crisco III, Ph.D, Director of Research for the National Organizing Committee on Safety for Athletic Equipment (NOCSAE), reported on NOCSAE-sponsored work currently underway on ball hardness. Dr. Crisco presented a theoretical model of ball hardness and "target" hardness which predicts that softer baseballs, while showing reduced injury potential for head injury, would not show reduced injury potential for chest injury.

Gopal Jayaraman, Ph.D., Professor of Biomechanics, Michigan Technological University, presented NOCSAE-sponsored research on method for the quantitative description of protective padding. He also presented data showing that the frequency response of padding differs with its hardness. The physiological implication of this frequency response difference is as yet unknown, but it presents the possibility that padding may shift the chest impact frequency, possibly into a potentially harmful zone, depending on the natural frequency responses of the various internal organs.

Rita Glassman, National Youth Sports Safety Foundation, and Susan Kyle, Ph.D., U.S. Consumer Product Safety Commission, presented baseball-related death and injury data.

Closing discussion revolved around the fact that the injury mechanism of commotio cordis remains unknown, and that until the mechanism is known efforts at protection may possibly increase the risk of injury.

Subcommittee F08.55 on Padding

Henry Cross, III, Ph.D., Executive Consultant, will chair a task force F08.55.01, to develop methods of testing padding effectiveness. Dr. Cross reported that David Halstead at the University of Tennessee is developing a method to test padding which will use an artificial limb form, such as an arm, with a cut area instrumented to measure impact forces from a variety of projectiles, with and without protective padding. This research is being funded by Hansen Sports, of Minneapolis, a manufacturer of protective padding.

Henry Scarton, Ph.D., Professor, Rensselaer Polytechnic Institute, described a test method he has developed for determining the dynamic hardness of baseballs and softballs which could also be used to measure padding effectiveness.

General information from meetings of the F08 Committee and the Society Breakfast Meeting includes the following:

- o Committee F08 now has between 600 and 700 members. The F08 Planning Subcommittee is considering grouping subcommittees into "Divisions" with each division having a coordinator who reports to the Committee Chair. This would be strictly for purposes of administration and coordination and would not affect the voting process.
- o The progress of the new ASTM headquarters building in the outskirts of Philadelphia is ahead of schedule. Occupancy is expected in September or October.
- o Since very few persuasive negative votes are received when standards are balloted at the full Society level, full Society vote will now be balloted at the same time as full Committee balloting. This results in a considerable savings of time.