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The Equipment and Facilities Specifications Newsletter

An official copyrighted publication of the Equipment and Facilities Specifications Subcommittee of the National Officials Committee

WELCOME TO NEW SUBSCRIBERS

This Newsletter has been sent semi annually as an educational tool to Weights and Measures and interested Throws Officials, and certification chairs for twelve years. This Olympiad I have added those of you who inquired about becoming Technical Managers. This copy is being sent to about 770 people of whom 600 are certified W&M Officials. Welcome to our new subscribers.

Young	Anthony	Southern California
Enz	Peter	Southern California
Howell	Kenneth	West Texas
Beene	Chris	West Texas

IF YOU KNOW SOMEONE WHO COULD BENEFIT BY GETTING THIS INFORMATION, PLEASE SEND HIS OR HER ADDRESS or EMAIL ADDRESS TO THE EDITOR. LIKEWISE, IF YOU ARE NO LONGER INTERESTED IN BEING ON OUR MAILING LIST, ALSO LET ME KNOW. FOR FASTER DELIVERY AND FOR UPDATES IN BETWEEN NEWSLETTERS SEND ME YOUR E-MAIL ADDRESS. IF YOU'RE GETTING THIS BY MAIL, I DON'T HAVE YOUR CURRENT EMAIL ADDRESS.

E&FS's ANNUAL CONVENTION MEETING

The annual meeting of the committee was called to order by the chair, George Kleeman, on December 4 at 5:30 in Greensboro, North Carolina. The minutes of the 2002 meeting were approved. The agenda for the 2003 meeting attached was approved. Everyone introduced themselves and their interest in the meeting.

Old Business

Two newsletters were sent out by George. He asked for help with contributions to the newsletter since after 13 years he is running out of ideas.

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Implement Problems in 2003 Most of the discussion centered on problems with the weight throw.

Reminders: There are differences in the number of links allowed in USATF versus NCAA. On the other hand the NCAA no longer has a minimum length requirement so the length spec is the same as USATF.

Make sure to check for the marking from the weights and measures officials before the throw.

Javelin--the taper may be behind the grip.

Discus--Some of the new one have not been passing a significant number of times.

Pole Vault ASTM group has now taking over the pole vault safety work started by this committee.

New Business

Rule Changes for 2004

Wind gauge IAAF is recommending the use of an ultrasonic wind gauge for their major meets. USATF did not adopt this rule at the convention for our meets.

If any wind gauge is dropped, it will not be accurate and needs to be recalibrated. Currently getting gauges calibrate is a problem, since very few places have the facilities. However you can at least check your gauge by testing it versus another one with the same set up.

Hammer In 2005 there will be a requirement for handle strength. The current IAAF spec is too stringent and will have to be modified this year. The NCAA has changed to the 34.92 degree sector. There is a new IAAF hammer and discus cage. They recommend higher and longer sides for the cage.

Pole vault IAAF has changed to the USATF standard movement specs. They have added more standard base protection with a cover. Pole pads and the new soft pole vault box by Skydek were discussed. George circulated pictures and a reduced sized sample of that new pole vault landing area. George has had discussions with member of the IAAF Technical Committee and the USATF Rules Committee and he stated that he believe the soft box meets all the legal requirements for records. It certainly reduces the risk of injury significantly. It is currently being tested at number of locations around the US.

Goals for 2004

Hammer The Youth Committee will need specifications for

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the hammer for boys and girls. (Done as part of rule changes- currently spec is for 12 lb for boys and 4 kg for girls.

Certification Test The new weights and measures test will be ready by August, 2004.

George asked for input. Tony Wayne and Jim Shelley volunteered to help George with the test.

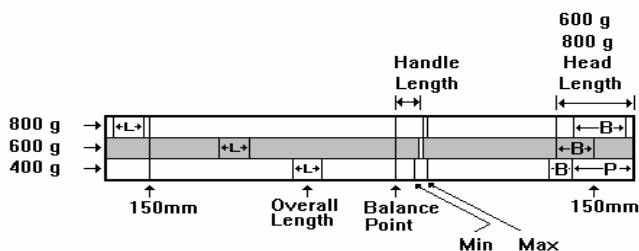
The meeting was adjourned at 7:30.

THE TRAINING CENTER

This is a regular feature of this newsletter, where we discuss the method of measuring an implement, venue or a track facility. Your comments or areas of interest are welcome. It is through this kind of dialogue that we learn from each other and improve our skills. Send the editor your stories and questions. The IAAF now has their approved equipment list on line at the following address:
<http://www.iaaf.org/downloads/type=publications/index.page=2.htm>

This newsletter we will discuss the javelin which is the implement with the most measurements and tends to take the longest time. But there are some tricks particularly when you have a lot of implements that can reduce your workload. If you have three people have one do steps 1, 2, 5, one do 3, 4, 7 and the third person do 6, 8, 9 and 10.

- *1. Hold the javelin vertically, tip down then rotate it so the point is up and shake it. Listen for any internal movement. You may need to tap it on the floor each way to make sure there aren't any moveable internal parts.
- *2. Take the javelin by the whip cord to see if it is damp, which is used to help it make weight. If it is, impound it.
- *3. Check the overall length, the length of the head and the length of the grip. You can easily make a folding device to measure the overall length and the incremental distances as shown in the figure below or the picture at the end of the newsletter. Alternately you can use mark a retractable steel tape with the necessary dimensions. If you have a lot of javelins stand them all up and pick the longest and shortest. If they pass, then all the rest will pass. Do the same for the longest and shortest grip and point.



JAVELIN BOARD

Not to Scale

See picture also at end of Newsletter.

4. **Check to center of gravity** by performing the balance test. This is the most common reason for why a javelin fails. Mark the center of gravity, usually about one or two cords back from the front of the grip. **All taper measurements are now made from the center of gravity.** Measure the distance to the tip. See the USA Track and Field Rulebook Rule 205, page 116 or the W&M handbook page 16 or 28 for the various dimensions. Check for indentation, rings, roughness, flutes or other aerodynamic improvements, i.e. non- smooth finish. Normal wear is acceptable as long as proves aren't symmetric. There should be no tape and decals on the javelin, which might improve the aerodynamics during the flight. Prior to balancing the javelin, make sure there is no paint or dirt on the metal point. Clean off paint with a paint remover or a stiff wire brush and dirt with a stiff wire brush.

- *5. Check the weight. If you are using the Trackmaster (TM) then use the number 1 weight for the men's javelin and no weight for the women's javelin. The weight of the other javelins requires some special weights.
- 6. Check the maximum diameter just in front of the grip. The diameter at the rear of the grip should be at least as large as the maximum diameter less 0.25mm. Check the diameter of the tail, which must be greater, and 3.5 mm for all javelins. Check the diameter of the grip. The maximum difference between the diameter of the grip and the diameter of the shaft at the point at the front of the grip is 8mm. The diameter just behind the head should be at least the diameter at that point less 2.5 mm.
- 7. Mark the 150mm point from the tip and the tail (except the 400g where it is 125 mm). Mark the mid point between those points and the center of gravity. Make the necessary measurements using either the Trackmaster (TM) device or a caliper. The diameter at the 150mm point the tip will be less than or equal to 80% of the maximum diameter. The diameter at the 150mm point from the tail will be at least 40% of the maximum diameter. The diameter at the mid point between the 150mm to the center of gravity before the grip will be less than or equal to 90 percent of the total diameter while the equivalent point half way to the tail will be a minimum of 90% of the maximum diameter. That means that the Javelin device goes beyond the mark on the front and does not exceed the mark in the rear. Either the diagram on page 172 (Rule 193) of the IAAF Rulebook, or page 42 (Rule 2-11-5) of the NCAA Rulebook is useful for reference when doing these measurements.

*8. Sight down the shaft or use a 50 cm long straight edge to check the tapering. Javelins do get damaged so there may be a bend in the shaft. Since this is not seen as an aerodynamic help, this should not normally be a reason for rejecting the javelin unless you think it might cause a failure when thrown.

*9. Check the tip to see if it less than the maximum of forty degree taper. This can be done with a plastic protractor and several pieces of tape.

10. If the javelin passes all the tests, mark it on either near the whip cord or just above the metal head.

Because of the number of measurements to check a javelin, it is sometimes necessary to do only the critical ones particularly if the you have previously checked the manufacturing specifications of the taper. Taper measurements should not normally change. In the interest of time, some of these taper measurements may be excluded if a visual check (step 8) does not show a gross or obvious problem. However, if the javelin is repainted or has no W&M marks you might want to check to make all the dimensions to be sure. The critical measurements and the one which usually cause failure are marked with an asterisk.

APPROVED RULE CHANGES

Although this was not a Rules Change year for either USATF there are still a number of emergency rules that were accepted. But the number affecting throws and W&M were limited.

For the Hammer: Added to the Youth Championship and JO in 2007 for Intermediate Division & Young Men's/Women's Division Hammer (B 12lb - G 4kg).

Change the Note following Rule 201.4 for the hammer handle to: Effective January 1, 2005, this section will read: Handle. The handle shall be solid and rigid made in one piece without hinging joints of any kind. It shall be isosceles triangle or sector of a circle shaped. The handle shall not stretch appreciably while being thrown. It shall be attached to the wire in such a manner that it cannot be turned within the loop of the wire to increase the overall length of the hammer. The handle may have a curved or straight grip with a maximum width inside of 130mm and a maximum length inside of 110mm. A minimum handle breaking strength specification will be added next year.

Modify the recommended cages in Rule 211 as follows: Replace the last sentence of section A of the note with: The panel opposite to the direction of spin, i.e., the left-hand panel, for a right-handed thrower, is place inside the sector line 1.5m. If shorter than this distance, then the gate should be perpendicular to the sector line. The other gate should touch the sector line away from the circle. Replace section B of the note with: An alternate cage is the IAAF cage and is recommended for new construction.

For the Pole Vault Amend pole specs in Rule 204 as follows: ... ((The pole may, however, have a binding of not more than two (2) layers of adhesive tape of uniform thickness. The restriction to tape does not apply to binding the bottom end of the pole with protective layers of tape, for a distance of

30cm.)) At grip and at bottom end, the pole may have protective layers of tape. Then for the Pole Vault standards, it is required that the metallic structure of the base and the lower part of the uprights be covered with padding of appropriate material in order to provide protection to the athletes and the poles.

For the Javelin Amend the specs in Rule 205.1 as follows:

Construction – The javelin shall consist of three main parts: a head, a shaft, and a cord grip. The shaft may be solid or hollow and shall be constructed of metal or other suitable material so as to constitute a fixed and integrated whole. The shaft shall have fixed to it a metal head terminating in a sharp point. Remove Note following Rule 205.6 and then add to the end of Rule 205.6 as follows: The head shall be constructed completely of metal. It may contain a reinforced tip of other metal alloy welded on to the front end of the head provided that the completed head is smooth and uniform along the whole of its surface.

For Horizontal Jumps Amend how plasticine is applied by adding as 4th sentence to Rule 217.2 as follows: The upper part of the indicator board shall also be covered by a plasticine layer for approximately the first 3mm and along its entire length. The board shall be mounted ...

For Crossbars: Amend Rule 218.3 as follows:

... These end pieces shall be hard and smooth. They shall be circular or semicircular with one clearly defined flat surface on which the bar rests on the crossbar supports. These flat surfaces may not be higher than the center of the vertical cross-section of the crossbar. Note correction from previous newsletter the first picture was mislabeled and is acceptable. Equipment changes for the other rulebooks are available at www.usatfofficials.com under Rules. The main NCAA change is the removal of the minimum length dimension for the weight and the change to the 34.92 degree throwing sector for all but the javelin. The NCAA decided not to implement the flat flow rule this year because USATF said they wouldn't accept any NCAA meet measurements as qualifying for the Olympic trials if they approved that item. So it has been tabled for 2004.

EQUIPMENT CORNER

If you have any information on equipment that you have purchased or built to help with your weight and measure activities, please pass along the information. One of our goals is to disseminate that kind of information.

As I looked thorough the 2004 equipment catalogues I got at the convention, I came across some interesting things. Gill for example now is selling separate discus gauges for the 1.0, the 1.6 and 2 kg discus. Likewise the have a javelin gauge to check the 600 and 800g javelin. These are in addition to their full high school kit with or without javelin gauge and their collegiate/international kit. They also sell implement scales separately for up to 10 and up to 20 kg. MF has a digital scale which is battery powered plus what appears to be the Gill Javelin balance and Implement

certification kits. Likewise Springco has an economical digital scale and the Trackmaster Implement certification kit plus the scale separately.

I would be interested in knowing what equipment you use at your various schools. Send me a note so I can publish it next time. How many have their devices that they use? How many use Gill, Trackmaster (Original Red Meade, Balko or Daktronics) or some other? Email me at georgekee@aol.com.

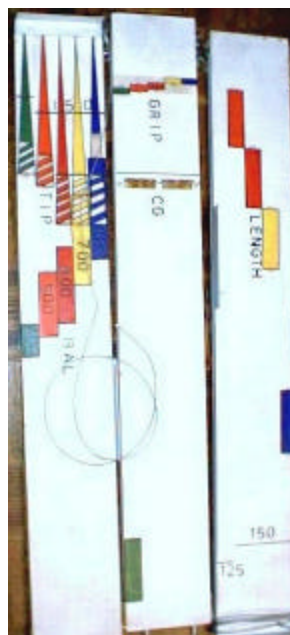
CERTIFICATION

How do I become certified Weights and Measures Official, a Technical Manager or become recertified if I have let my membership lapse? Currently USATF is the only organization having a national training and certification program for Track and Field officials (particularly in the area of Weights and Measures Officials or Technical Managers). You can become an USA Track & Field official by contacting your local association. To find out whom to contact, send the editor a note and he will send you the appropriate address. If you have Internet access, you can look at the Association's Web page, which is part of the USATF Website. It can be found at <http://www.usatf.org/about/associations.htm>. The Certification Chairs are also listed in the Officials' section of the web site. In addition to the paper work that your local association requires to become a certified official, your local Officials Chair can send you the Weights and Measures open book exam. This exam is intended to test you on your knowledge of W&M techniques and specifications so that you can be certified in this specialty. It covers all of the rulebooks. See the next article on the handbook. If you would like to have a clinic let the editor know. He can try to get some nearby clinicians to help out. Note all current officials have to be recertified for this Olympiad ending in October 2004. There is currently no test for becoming a Technical Manager. However, both specialties do have monographs which explain their duties. If you're interested in the Technical Manager's specialty contact George Kleeman for more details.

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UPDATED W&M HANDBOOK FOR 2004

An updated version of W&M Handbook (29 pg.) with all the changes for 2004 will be available in February on the usatfofficials.com website.



3 Piece Javelin Board for all 5 Weights