

Why did the senior javelin specification have to be changed?

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(Translated from the original German by Jürgen Schiffer)

ABSTRACT:

The author explains why the IAAF Technical Committee decided to change the rules for javelin construction. He describes the problems concerning the kind of changes, the approval by various committees and the differences of changes between javelins for male and female throwers and its reasons.

The IAAF Technical Committee decided to change the rules for javelin construction because of the increasingly frequent flat landings and the resulting discussions and protests because of attempts declared valid or invalid by competition judges.

During 1982 and 1983 extensive experiments were conducted with javelins whose centre of gravity had been moved forward by 2, 3, 4 or 5 cm. Thanks to the assistance of several manufacturers, numerous javelins were produced with the required modifications and hundreds of throws were made by athletes in some cases but mostly with the use of launching machines. The result was that a shift in the centre of gravity by 3cm was sufficient to guarantee the javelin landing point first. Even so, the majority view of the Technical Committee was that a shift of 4cm should be proposed to the Congress to avoid a further possible change within a few years caused by the necessity to reduce the throwing distance once again. The basis of this idea was that every change of the construction rules causes enormous costs. It was clear to all of us that a reduction in the throwing distance achieved should also play a role in the change to be made, because the world record at that time was 99.72m. In demanding a change of the construction rules however, our primary goal was to achieve an exactly measurable landing of the javelin so that it was no longer completely up to the discretion of the judge on the infield to declare a throw valid or invalid.

The 'new' construction rules were fixed in 1983. At the beginning of 1984 they were added to the agenda for the Los Angeles Congress and, in May of the same year, they were dispatched to all member federations of the IAAF. This meant that all the precautionary measures for changing this rule at the Congress to be held immediately prior to the Los Angeles Olympic Games were taken.

On July 20, 1984 (three weeks before the Olympic Games and two weeks before the L.A. Congress), Uwe Hohn (GDR) hurled the javelin to the formidable distance of 104.80m and ever since then the media have incorrectly reported that this throw was the cause for the change in the rules. The information given above clearly shows that this was not the case as applications for change to be considered at the Congress had to be submitted to the member federations as early as four months before the Congress.

On the subject of the 600g javelin, a similar change of rules in the form of a forward shift of the centre of gravity was proposed to the Congress at the same time, because it was our firm conviction that this would lead to the same effect as far as landings were concerned as was the case with the men's javelin. Unfortunately, the practical trials with the different variations of 600g javelin specification had not been done and this oversight meant that no

decision for change could be made. The change in the 800g javelin specification was accepted by the Congress in 1984 and was brought into force from April 1, 1986 onwards, while the proposed change in the women's javelin had to be rejected.

The consequence was that, from 1986 onwards, there was an unsatisfactory situation whereby in the men's events one could have actually managed without the infield validity judge because every 800g javelin stuck in the ground, while in the women's competitions there were still questionable landings and subjective decisions being made.

Intensive observations of the javelin competitions at the 1986 European Championships in Stuttgart, the 1987 Grand Prix Peugeot-Talbot Meeting in London, the 1987 World Championships in Rome and the Olympic Games in Seoul in 1988, showed up obvious shortcomings and an urgent necessity for change. This observational summary of specialist throwers at a world class event may serve as an example: out of a total of 134 throws, 25 (= 18%) were declared invalid because of flat landings. An additional 27 throws (= 20%) landed in the border zone and were decided "generously" by the officials.

In the heptathletes' javelin competition, 18 of 76 throws (= 24%) were invalid and there were an additional 31 (= 40%) throws which landed in the border zone. With strictly correct judging, four or five athletes would have left the stadium without achieving a valid throw, i.e. with zero points.

It was quite clear that the only way to achieve a really fundamental change was by shifting the centre of gravity of the javelin, but this was made impossible at that time by the persistent refusal of the IAAF Women's Committee. Therefore, a compromise had to be looked for. Once again experiments were carried out in co-operation with the javelin manufacturers and it was agreed that the changes made to the diameter of the men's javelin should be incorporated on a proportionate basis to the women's javelin. This led to a thickening of the rear part of the existing javelins, which debarred the high-performance javelins for 70 or 80m. Although this brought about a slight improvement in the number of 'legal' landings, the result was not really satisfactory. However, it was simply impossible to do anything more at that time. This rule change was accepted by the Congress in Barcelona in 1989 and was brought into force on April 1, 1991.

Even with this rule change the discussions about questionable landings, mainly in the heptathlon, did not stop as the problem had not been resolved.

At the request of the IMF Women's Committee, this state of affairs was finally dealt with in 1996. A series of experiments with javelins with different shifts in the centre of gravity by 1, 2, 3 and 4cm led to an application for a change of the rule at the Athens Congress in 1997. The result was that the centre of gravity was shifted by 3 cm (from 95 to 92cm). This rule change (which was identical to the one the IMF Congress had dealt with in L.A. for the men's event in 1984) was brought into effect on April 1, 1999.

The rule change was introduced approximately two years after the approval by Congress in order to give manufacturers enough time to produce the new javelins. Unlike the change of the 800g javelin in 1984/85, the time set aside was unfortunately not used optimally by the manufacturers so that there were some delivery difficulties in the spring of 1999. The problems were subsequently rectified and the performances

achieved in competition during the 2000 season have demonstrated that all the intentions associated with the necessary change of rules have been achieved.

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