

## Nine tons of equipment for timing the Winter Games in Lake Placid

by Denis Oswald

Timing plays a vital role in all sports competitions. In certain events (skiing and all races against the clock, for example) it is the only way of determining the order of competitors. For other sports, in which the order of arrival of the athletes is the deciding factor, it makes it possible to appreciate the value of each individual performance and the intervals of time between competitors. In addition, special optical instruments, bound up with the measurement of time, make it possible to establish the order of athletes in photo finishes.

In a sports meeting of the importance of the Olympic Games, timing can only be entrusted to a specialised firm, capable of

ensuring optimal service under all circumstances. At the present moment, the differences between the best athletes have become so small that timing must meet increasingly exacting demands of precision.

For both the Winter Games in Lake Placid and the Summer Games in Moscow, the organisers have called on Swiss Timing, which has its head office at Bienne (Switzerland).

This company was founded in 1972 by the watchmaking firms Omega and Longines, on the initiative of the Swiss Watchmaking Federation, in order to benefit from the combined experience and operational poten-



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tial of the leading Swiss specialists in this branch. Concentrating mainly on the timing of large sports meetings, Swiss Timing calls on the combined services of Omega, Longines and Heuer, each connected individually with the timing of all Olympic Summer and Winter Games from 1932 to the present day, with the exception of the Games in Tokyo in 1964 and Sapporo in 1972.

### Since 19th June 1978

The timing contract concluded with Swiss Timing by the Organising Committee for the Olympic Games in Lake Placid was signed on 19th June 1978, after long negotiations. Since then, close contacts have been maintained between the parties, in order to work out all details of their co-operation. Swiss technicians have gone to Lake Placid on several occasions to solve on the spot the many technical problems involved in the timing of such an event.

But timekeepers do not work in a vacuum and their job presupposes co-operation on many levels. First of all, with the International Federations representing the different sports, in order to act in accordance with the regulations in force and to agree on practical questions, such as the position of the intermediate timing points for example. Next, with the firm responsible for processing the data and giving the order of competitors, as well as with the firm responsible for displaying the different results and information on the large display panels for the public.

Finally, Swiss Timing co-operates closely with the television companies, to which it supplies the information superimposed on the screen. In particular, it indicates the name, number and sometimes the country of the competitor, the time to beat and the time made by the athlete himself. This information is very useful to commentators and it makes the race much more exciting for television viewers, who are thus able to see at a glance the standard of the performance they are watching.

### Perfection and subtlety

From the technical point of view, cross-country skiing calls for a highly perfected

timing set-up. More than one hundred competitors can all be on the course at the same time and the timers must be able to indicate at any given moment the exact time for each skier. In this way, the television producer can show the competitors at different stages of the course, without there being the slightest confusion in the mind of the viewer, the times shown on the screen always matching the picture. The personnel includes certain specialists dealing solely with the transmission of this information to the television.

In skiing events, the timing impulse, at the start, is set off by the opening of the gate as the competitor hits it with his shins. On arrival, timing stops immediately as the skier cuts the beam of the photo-electric cells. These however have to be designed not to react to the passage of the sticks, which the skier could hold out ahead of him or throw, but only to the competitor's shins. This is a technical subtlety that Swiss specialists have also perfected.

Competitions were held at Lake Placid in February/March 1979 and Swiss Timing took the opportunity of sending out its staff and equipment for a full-scale dress rehearsal. These tests proved very useful. They made it possible to co-ordinate the work of the different members of the timing team mentioned above and were also useful practice for the extra staff placed at their disposal by the Organising Committee. Certain minor problems arose which led us to modify some of the steps already taken. We did not expect, for example, that the temperature could be as low as it was last February and we have now equipped our photo-electric cells with small heating devices so as to avoid any malfunction due to the cold.

Other tests were also carried out in November (cross-country skiing and biathlon) and in December (bobsleigh and speed skating), so that nothing has been left undone to ensure optimal service.

### Fifty specialists

For the coming Olympic Games, about 50 specially qualified timekeepers went out at the end of January to finish the final stage in the setting up of the equipment, to try out all the installations and then to time the training



*In the bobsleigh event, differences in performances are sometimes in terms of hundredths of a second.*

sessions and the actual competitions. They are used to working under the most difficult conditions and in coping with all situations.

The timing equipment represents a volume of about 45 cu.m., a weight of about nine tons and a value of nearly two million Swiss francs. The precision and reliability of this equipment needs no further demonstration and furthermore it is continually being improved by specialists in the research laboratories of the Swiss watchmaking industry.

It is worthwhile reminding readers that Swiss Timing's electronic equipment guarantees a precision of one thousandth of a second per 24 hours. Such precision is more than enough, since external factors such as temperature, snow, fog, etc., can have a far greater effect on the performances of competitors, without their being taken into account in the final placing.

Although the reliability of the equipment is absolute, each timing system is backed by another, or even by two others, in order to meet all eventualities.

In choosing Swiss Timing, the organisers of the Olympic Winter Games in Lake Placid were aware that the timing of such an important event had to be perfect and had to enjoy the confidence of all concerned, in particular the International Federations and the athletes themselves.

For our part, we can safely say that Swiss Timing has left nothing undone in order to be fully worthy of the importance of the event, to live up to its reputation and to justify the confidence placed in it.

