

# BUSINESS MACHINE

THE WHYS AND WHEREF  
OF IBM'S CORPORATE S  
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OLYMPIANS HEISS AND PITO  
AT IBM OLYMPIC HEADQUARTER

(Story on page



# RAMAC Scores 'First' In Winter Olympics

A nineteen-year-old girl, crouched low over her skis, sped towards the crowd-lined finish of the ladies' giant slalom race at Squaw Valley, Calif.

She was Wendy Farrington, of Great Britain's VIII Winter Olympic Games team. She was number 49, the final racer to brave the steep, twisting course set by widely-separated pairs of flags through which each contestant had to ski.

She schussed past the finish line's electric timing beam at better than forty miles an hour.

When she did, this is what happened:

A blue-clad IBMer standing at the electric timing clock in the tower next to the finish (see photo, above left) instantly re-

peated the time into the telephone mouthpiece at his lips.

"Ten point four six point oh four point two," he said. (It was forty-six minutes, four and two-tenths seconds after 10 a.m.)

The words sped to an IBMer with headphones (photo, above right) who was poised at an IBM 26 Printing Card Punch. He was in the company's pioneering Olympic Data Processing Center at the hub of the Olympic area.

Knowing the order in which the racers were coming down, he had already put Miss Farrington's basic card into the machine. He immediately punched the time into the card.

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Split-second times of Olympic competitors followed well-planned channels into RAMAC for computation and analysis. See photos this page for example of how RAMAC worked.



Phoned-in times are punched in cards . . .



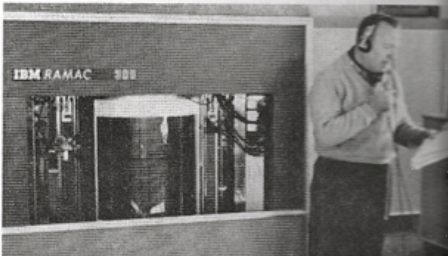
. . . passed at once to RAMAC operators . . .



. . . and entered in machine for calculation.



Complete order of finish is printed out . . .



. . . for relay to public. Walter Cronkite of CBS telecasts Olympics from IBM center.

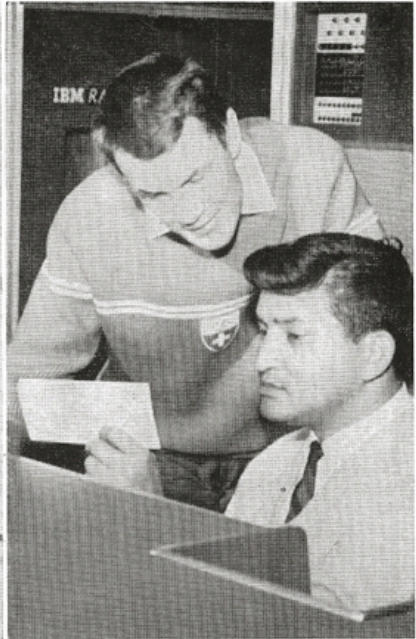


Carol Heiss shows gold medal style in figure skating (left); relaxes later in IBM center.

Canada's figure skating "pairs" champs, Barbara Wagner and Robert Paul (top), are interviewed (bottom) at IBM headquarters.



Penny Pitou races (top) and lunches at IBM with gold medalist Heidi Biebl (left).



Swiss skiing gold medal winner Roger Staub in action (left) sees IBM scores computed.

It was passed from the card into the center's twin IBM RAMAC® 305 system.

In a snap, the RAMAC calculated the time it had taken her to come down. It already had recorded the time she had started—previously phoned in by an IBMer at the mountain-top starting gate to another IBM card punch operator. It subtracted the starting time from the time she had finished.

Her racing time was two minutes, four and two-tenths seconds.

The RAMAC immediately compared her time with those of the other women racers who had finished before her. In the same movement, it calculated where Miss Farrington had placed in the race and printed this position on an IBM printer along with her time.

A third IBMer, standing at the printer and reading from it, called time and place into the headset phone he was wearing. An IBMer at the score board near the giant slalom finish line was waiting and listening. He called out Miss Farrington's placing to an announcer, who relayed it to the finish-line crowds over a public address system and flashed it on the board.

The RAMAC had gone through the same procedure for each of the other racers, who had started down the course a minute apart.

In addition, it had repeatedly printed out a list of the ten highest placing contestants. The RAMAC changed this listing in a flash whenever its calculation of a racer's time showed that she warranted a place in the top ten.

But this wasn't all.

Miss Farrington, who unfortunately for Great Britain's hopes had braked too frequently during her run and placed far behind the leaders, was the last contestant.

The RAMAC system, with the race now ended, was immediately told—through the push of a console button by the IBM system operator—to print out the complete results. It did so at once.

It showed that first place in the ladies giant slalom went to the girl who had started third—Yvonne Ruegg, of Switzerland. Her time was one minute, thirty-nine and nine-tenths seconds. It showed that number two was the girl who had been eleventh to start—Penny Pitou, of the United States. Her time of one minute and forty seconds flat was a heartbreaking tenth of a second behind. It rhythmically listed the same details for the 42 other starters—the order of finish, starting position, name, country and time.

#### RAMAC Saves Hours

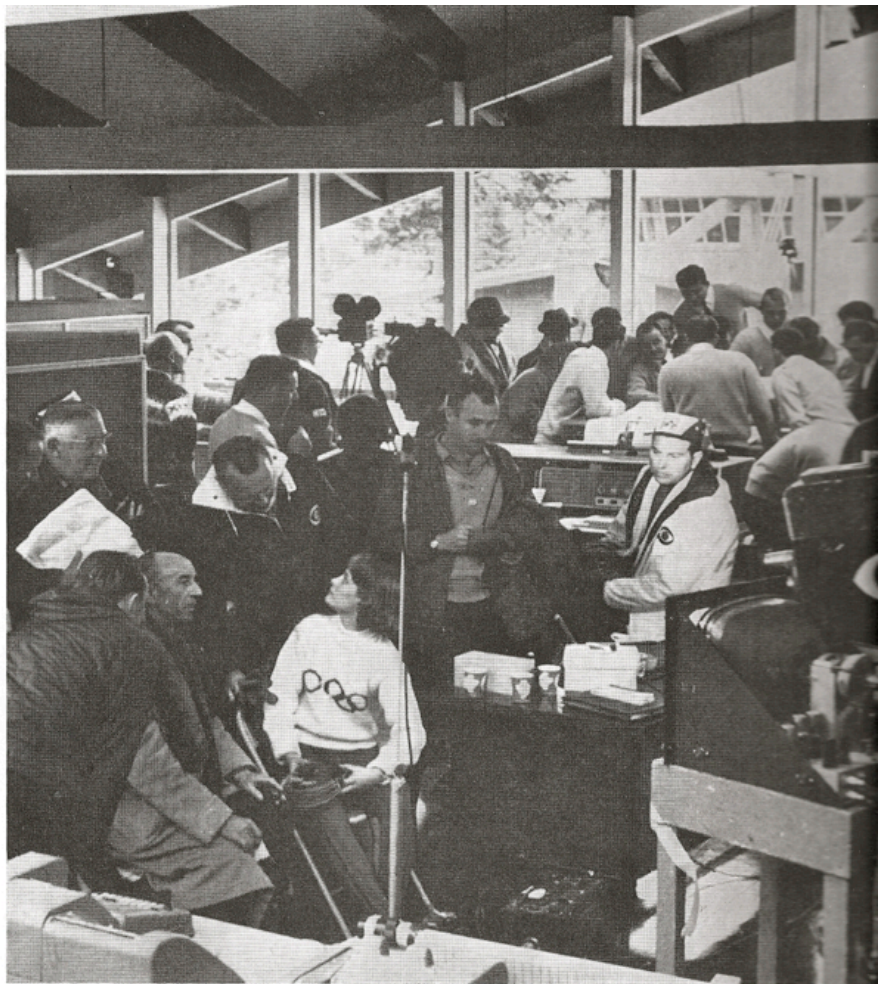
Such overall results, which for this race took the RAMAC only 44 seconds to produce, were calculated for every event except ice hockey. For that event a non-computer box score was regarded as sufficient. The linked RAMACs frequently scored three events at once—occasionally four—including the figure skating competition. In this event, nine judges each gave numerical grades for each of the numerous figures the many skaters performed. They rated the skaters both for form and the content of each maneuver. And the final figure skating score was not a simple addition but was based on a complex formula calculation. Before IBM's introduction of electronic data processing at Squaw Valley, as many as four and five hours were required to calculate complete results for a figure skating event.

The RAMAC did even more.

At the same time it was turning out results on its printer, it transferred the data to an IBM 063 card-to-tape punch which simultaneously stamped out the identical information on teletype tape.

#### Press Praises Service

This tape was immediately fed into a press teletype-transmitter at the rear of the data processing center. As the tape fed in, the race results spelled out in its punched perforations were instantly printed by receiving teletype machines in eight press



IBM's Squaw Valley data processing center was an operating location for newsmen, CBS-TV crews and olympic officials. Participants and spectators were also frequent visitors.

centers both in and miles away from the Olympic area.

All of the press associations, understandably, voiced high praise and appreciation of IBM's success for providing complete results with unprecedented speed.

So did Prentis C. Hale, president of the VIII Winter Olympic Games Organizing Committee.

So did the directors of the Columbia Broadcasting System teams which telecast Olympic events, ceremonies and news.

The CBS unit, relying on IBM for tallies which were presented in Walter Cronkite's news and other telecasts, used the IBM Olympic Data Processing Center as its anchor location.

#### TV Center at RAMAC Site

Many of the CBS programs were produced inside the data center or on its outside deck. They included views of the RAMAC system in operation and respectful descriptions of IBM's scoring speed. According to CBS, "well over a hundred million persons in the United States have seen all or a part of the Olympic telecasts."

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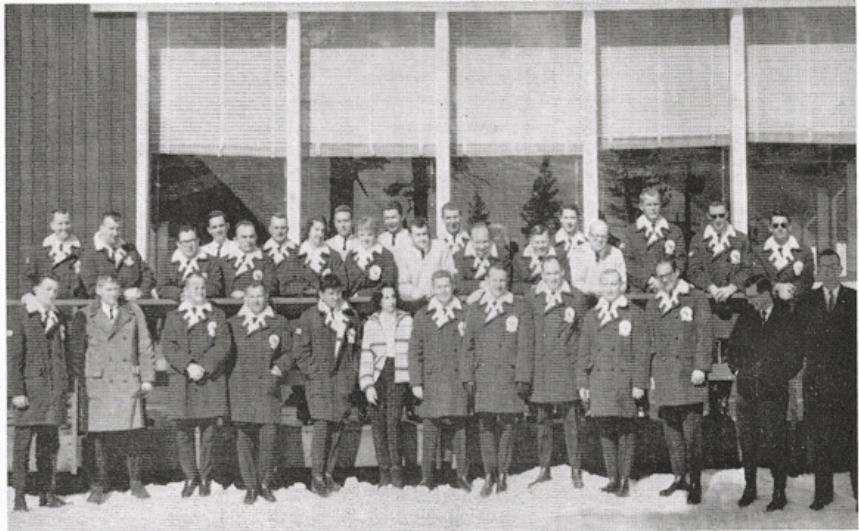
Olympic and press association officials expressed gratitude for the scoring service provided by IBM. Here is what two of them said:

**Prentis C. Hale, president of the Organizing Committee, VIII Olympic Winter Games:** "It would have been impossible for us to have held the VIII Olympic Games in the manner in which we have without the help from the IBM Data Processing Center. By reason of the fact that we were able to give the scores faster than at any time during the history of any Olympic Games, all contestants were extremely happy and pleased."

**Ted Smits, general sports editor, The Associated Press:** "This is my fourth Winter Olympic Games. Never before has the graded order of finish been available so promptly after the completion of each event. In fact, it was literally hours ahead of anything I have ever seen."



IBM President T. J. Watson Jr. discusses operation with IBMer Paul Funkhouser.



IBM Olympic staff members at front of Center. Some worked 16 months on preparations. Regular staff got helpful assists from 12 IBM volunteers vacationing at Squaw Valley.

Filmed selections of the telecasts were also flown abroad daily.

In addition to the RAMAC-tape-to-teleprinter distribution of results, the RAMAC's 407 printers were also the source of another major results-distribution operation.

After each event, reports were rushed to the Olympic press building about 100 yards away and distributed to the more than 1,100 news correspondents. Other copies were made available to Olympic of-

ficials, and to the more than 750 Olympic athletes. Others were posted on the outside of the IBM center for the benefit of the thousands of spectators who stopped at the building.

There was seldom a time that spectators were not grouped in front of the center—reading the race results; peering in at the RAMAC system and the activity of the IBMers on the regular staff; watching the CBS programs, or grasping the white tele-

phones attached to the building and listening to recorded explanations of IBM's role in the Olympics.

And there were fourteen red telephones—direct lines into the IBM center—in press and Olympic officials' rooms throughout the area. One of these phones had only to be lifted to make the RAMAC's memory available to answer the caller's questions.

IBM's part in the VIII Winter Olympics at Squaw Valley was quite an operation.

