

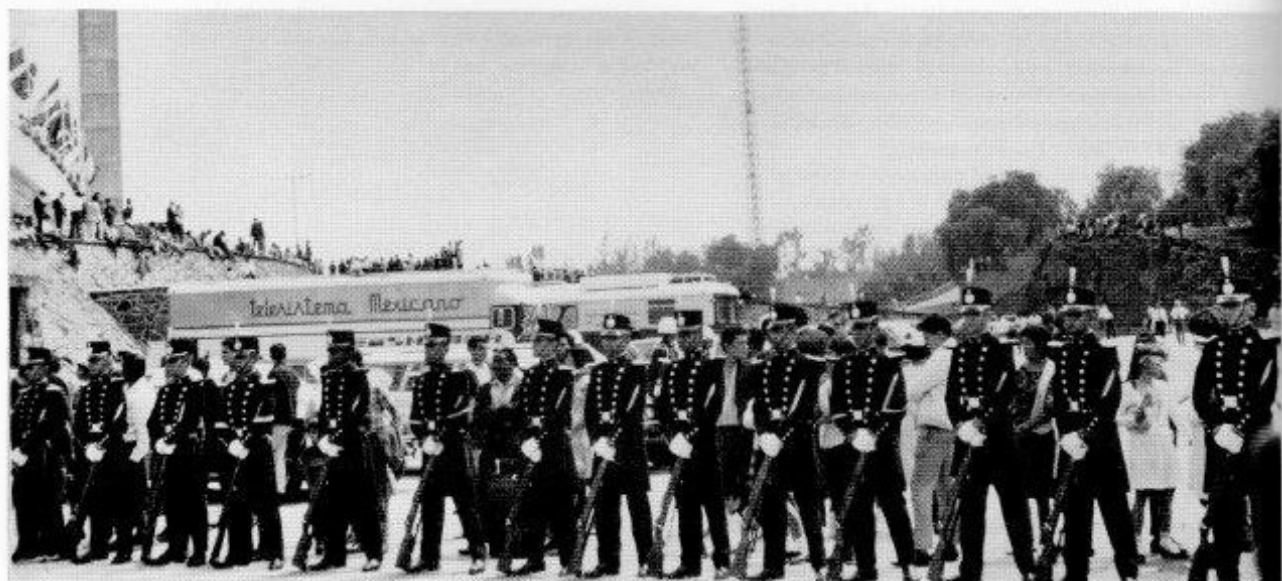
A Mark VII at the main athletic stadium.

Marconi at the Olympics

Mark VII cameras were greatly in evidence during the 1968 Olympic Games in Mexico, with a total of sixteen being used in four O.B. units. Twelve of the cameras, in three O.B. units, were supplied to Telesistema Mexicano, who were working in conjunction with the American Broadcasting Company, one of the main programme operators at the Games. The other main operators were the European Broadcasting Union and the Japan broadcasting corporation, Nippon Hoso Kyokai.

Four other Mark VII cameras were in use in an Ampex designed O.B. unit, normally operated by Seros TV Productions, but hired to ABC for the games. This unit covered all the rowing events at a specially prepared and excavated course which had a track alongside for television vehicles. All the O.B. units were fully mobile to provide the greatest flexibility in covering the many events at different centres.

Four types of colour camera were used throughout the Games, the only British ones being the Mark VII's, which produced demonstrably high quality pictures under conditions which were often far from perfect for transmission. For instance football, which was televised by Mark VII's at the Quablo Stadium near Mexico City, was often bathed partly in intense sunlight with equally intense shadows from the stands. Such large and sudden changes of scene contrast demand operational skill of the highest order if satisfactory colour pictures are to be maintained.



The colourful National Guard outside the main athletic stadium. Two O.B. Units equipped with Marconi cameras can be seen in the background.



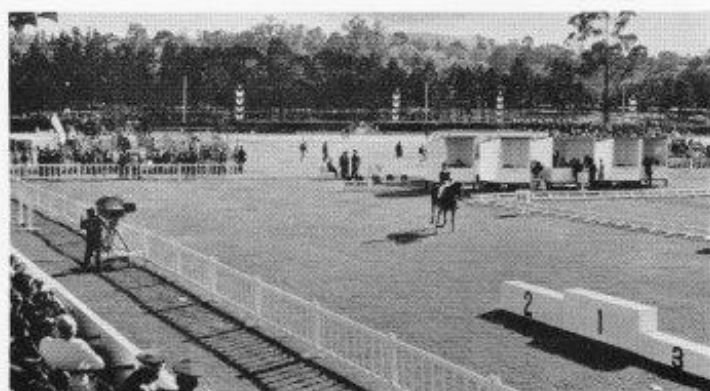
The Ampex-designed van which was equipped with Mark VII cameras.

Eventually, the problem was resolved by setting up two cameras, one for bright working and one for shade working, with the vision mixer switching between them as the game swept between sunshine to shade.

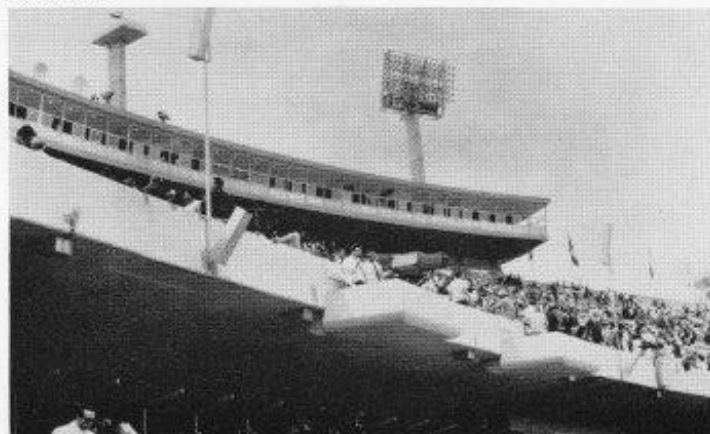
Although the main problem with the altitude was the effect of the rarified air on the athletes, the low pressure caused some heat dissipation problems in the broadcasting apparatus; no difficulties were experienced with the Marconi equipment in this respect.

All pictures were routed to a central distribution tower 16 storeys high, which was built on the floating platform principle because of earthquake risk. This tower was packed with communications equipment for the complicated process of starting the transmissions on their way round the world. It was built initially for the Olympic exercise, but will be used thereafter by the Mexican D.G.P & T.

From the tower, a two-hop microwave link took signals to the satellite earth station at Tulancingo, about 100 kilometres west of Mexico City. From this station, a 90-foot antenna relayed the vision signals for Europe via the Applied Technology Satellite ATS-3 to the British earth station Goonhilly I in Cornwall. Microwave links took the signal from there to Faraday House in London, where it was converted from the Mexican 525-line standard to the 625-line standard for transmission over the Eurovision network. Another antenna at Tulancingo



Many of the horse-riding events were covered, as shown, by Mark VII's.

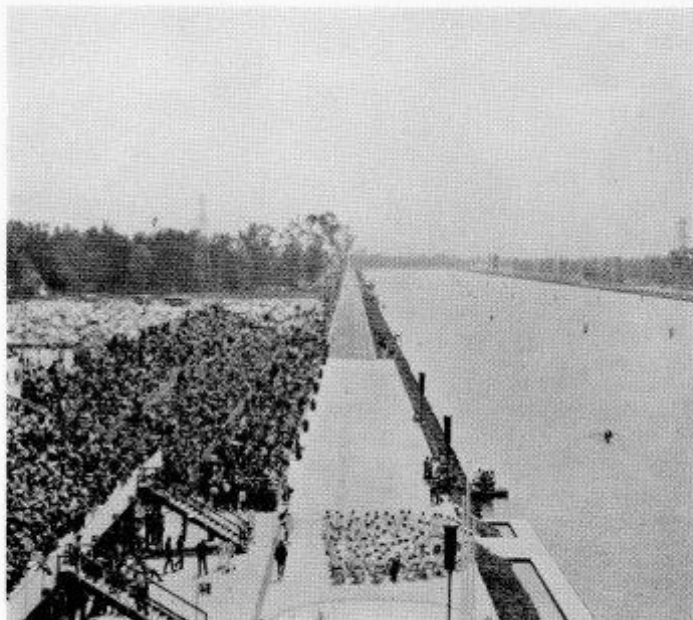


Mark VII's for long-short coverage are shown mounted on the roof of the main commentary box.

beamed signals via the Pacific satellite INTELSAT II to Japan.

The sound signal for Europe was relayed with the combined American signal to Cape Kennedy in Florida by overland microwave links. The U.S. signal was then split into signals for West, Mid and Eastern

A view looking down the specially excavated rowing course. The track on the left was provided for television coverage.



America and the European sound signal was relayed via White Plains in New York State, to Newfoundland. The Atlantic submarine cable TAT-1 passed the signal to Oban in Scotland where it was fed over a coaxial link to Faraday House to be recombined with the vision signal.

The original medium for the European signal was to have been the first INTELSAT III synchronous satellite with a projected capacity of 1200 telephone channels or two television channels. Unfortunately it failed to go into orbit due to a fault in the launcher. The alternative was ATS-3 which had not the capacity for both sound and vision signals, hence, the somewhat tortuous path of the sound signals, and the slight degradation in quality.

Countries operating on 625-lines, but not linked by Eurovision, South America for instance, were served by a Marconi standards converter run by Telesistema. Up to twenty conversions a night, each producing four tapes, were being carried out by the end of the games. Tapes often provided a condensed summary of the day's activities, with none of the tedious waiting between events associated with live transmissions. These tape signals were relayed from the tower to South America over a microwave link feeding into existing communications networks.

Altogether, Marconi equipment provided very high picture quality with the usual trouble-free operation expected, when televising first time, events for which there could be neither rehearsal nor repeat.

One of the three O.B Units each using four Marconi cameras.

