TECHNOLOGICAL PROGRESS AND THE OLYMPIC GAMES: MILESTONES ON THE ROAD

by Séamus Ware

As an electrical engineer by profession and as someone with a deep interest in Olympic history, I am naturally attracted to the question of the contribution of technology to the Olympics. In the broad sense, this is a very big subject encompassing such things as the surface of running tracks, material in shoes for high jumpers, fiberglass poles for vaulting - to name only some items involved with track & field athletics. It would be very difficult for one person to cover the range of technologies involved, in any case, but I give the following as a tentative list of some technological "milestones" in the Olympic Games. I would welcome correspondence, either through the Journal or to my home, and I am open to correction.

Stockholm 1912: (a) First photo-finish camera (presumably a primitive type); (b) First electric timing; (c) First public-address system.

Paris 1924: First use of radio for communication between sites and to give stage reports during the Marathon.

Los Angeles 1932: Timing to 1/100 sec., with the aid of "Kirby Two-Eye Camera" invented by Gustavus T. Kirby, which filmed at 128 frames per second. Times were displayed on three concentric discs.

Berlin 1936: (a) First radio (live) broadcast from Olympic Games; (b) First closed-circuit television broadcast (to halls throughout Germany); (c) First use of electrical equipment connected to fencers to record hits in Olympic competition (épée).

London 1948: (a) First television broadcast of Olympics to houses; (b) Modern photo-finish (continuous) filming.

Helsinki 1952: Use of quartz clock and timing to 1/1000 sec.

Melbourne 1956: Use of electrical equipment connected to fencers in foil competition.

Mexico 1968: Touch panels in swimming pool, and automatic timing used officially for the first time in swimming events.

Munich 1972: Starting blocks with pressure detectors (to record false starts) used in athletics (track) for first time.

Montreal 1976: Use of technology to transmit the Olympic Flame across the Atlantic after runners brought the Torch from Olympia to Athens, an electronic sensor was used to detect the ionized particles emanating from the flame and the sensor produced a series of coded electrical impulses. Impulses were transmitted via satellite from Athens to Ottawa. The impulses activated a laser beam in Ottawa which was used to ignite a Torch, which was then carried to Montreal.

Sources:

1. Magazines published on behalf of Olympic Council of Ireland in 1984 and 1992.
2. "International Olympic Committee - One Hundred Years 1894-1984: Volume 1," (Lausanne: IOC, 1995).
3. "Olympic Review," No. 320 (Lausanne: IOC).