

## Section 2.—Standard Time and Time Zones

In former times, when transportation was slow, time was based on 'sun time'. The difference in sun time as between communities was, of course, determined by the difference in their longitude. A locality precisely one degree of longitude west of another in the same latitude naturally had sunrise and sunset four minutes later than did the community one degree farther east.

The advent of rapid transportation made these 'local times' extremely inconvenient for travellers. It was almost impossible to work out railway time-tables on the basis of the local times of each community. Consequently, in Great Britain, where the differences of longitude are comparatively small, the problem was solved in 1880 by placing the whole country on the time of Greenwich Observatory, and the time in Ireland was standardized at twenty-five minutes behind Greenwich time, being the time of Dublin.

From 1878, Sir Sanford Fleming advocated standard time and, at a world conference held at Washington, D.C., in 1884, 'standard time' was adopted. Standard time sets the number of times in the world at 24, each time zone to extend over one twenty-fourth of the surface of the earth and to include all the territory between two meridians, 15° longitude apart. Standard time would be Greenwich time, all other time zones being a definite number of hours either in advance of or behind Greenwich. As the North American Continent extends over such an enormous distance from east to west, it was necessary to establish a number of time zones. Atlantic, Eastern, Central, Mountain, Pacific, Yukon and Alaska time zones have times, respectively, four, five, six, seven, eight, nine and ten hours behind Greenwich. The differences are usually expressed in intervals of so many hours difference from Greenwich; however, some localities of smaller area have times which are not an exact hours difference from Greenwich.

Canada has seven time zones, the most easterly being Newfoundland standard time, three hours and thirty minutes behind Greenwich mean time. Atlantic standard time, which is local time at the 60th meridian running near Sydney, N.S., and is four hours behind Greenwich, is used in the Maritime Provinces and those parts of Quebec and the Northwest Territories east of the 68th meridian of west longitude. Eastern standard time, which is the local time at the 75th meridian running near Cornwall, Ont., and is thus five hours behind Greenwich, is used in Quebec west of the 68th meridian, in Ontario east of the 90th meridian and in the Northwest Territories between the 68th and 85th meridians. Central standard time, which is the local time at the 90th meridian, is six hours behind Greenwich and is used in Ontario west of the 90th meridian, in Manitoba and the Northwest Territories between the 85th and the 102nd meridians and in the southeasterly part of Saskatchewan. Mountain time, which is the local time at the 105th meridian running near Regina, is seven hours behind Greenwich and is used throughout Saskatchewan except in the southeasterly part, throughout Alberta and in that part of the Northwest Territories between the 102nd and 120th meridians. Pacific standard time, which is local time of the 120th meridian running near Kamloops, B.C., is eight hours behind Greenwich and is used throughout British Columbia and in that part of the Northwest Territories lying west of the 120th meridian. Yukon standard time, which is the local time at the 135th meridian, running near Whitehorse, Yukon, is nine hours behind Greenwich and is used throughout Yukon