

What Is a Time Zone?

The Earth is divided into 37 different time zones. Each zone is a region in which a uniform standard time is observed for legal, commercial, and social purposes.

To understand time zones, you must first understand Coordinated Universal Time, abbreviated UTC. UTC derived from both atomic time and solar time. International Atomic Time (TAI) is kept by approximately 400 extremely precise atomic clocks located all over the world. TAI dictates how fast our clocks tick. Solar time, also called Universal Time, or UT1, compares the pace of TAI and the rotation of the Earth, which determines the actual length of a day.

UTC has evolved over the past 100+ years into what it is today. It began as Universal Time (UT), created at the International Meridian Conference in 1884, which laid the foundation for our modern 24-hour time zone system. The Prime Meridian, 0 degrees East longitude in Greenwich, London, was chosen as the reference line, meaning all time zones were some defined offset of Greenwich Mean Time (GMT). In 1960, the International Radio Consultative Committee, one of the three parts of the International Telecommunication Union, formalized the concept of UTC, which was implemented in 1961. The name Coordinated Universal Time officially adopted in 1967.

Many time zones are offset from each other by exactly an hour. With there being 24 hours in a day, it seems like it would make sense for there to be 24 time zones. However, some time zones have only a 30 or 45 minute difference from those adjacent to it. This is because the designation of time zones took into account the boundaries of countries and their subdivisions, so that areas in close commercial or other communication share the same time.

