

Because Earth revolves 360° every 24 hours, or 15° per hour ($360^\circ \div 24 = 15^\circ$), a time zone of one hour is established for each 15° of longitude. Each time zone theoretically covers 7.5° on either side of a controlling meridian ($0^\circ, 15^\circ, 30^\circ, 45^\circ, 60^\circ, 75^\circ, 90^\circ, 105^\circ, 120^\circ$, etc.) and represents one hour.

1. From the map of global time zones in Figure 1-6, can you determine the present time in the following cities? (For your time use the starting time of the lab.)

- | | |
|-----------------|--------------------|
| Moscow? _____ | Denver? _____ |
| London? _____ | Los Angeles? _____ |
| Halifax? _____ | Fairbanks? _____ |
| Chicago? _____ | Honolulu? _____ |
| Winnipeg? _____ | Singapore? _____ |

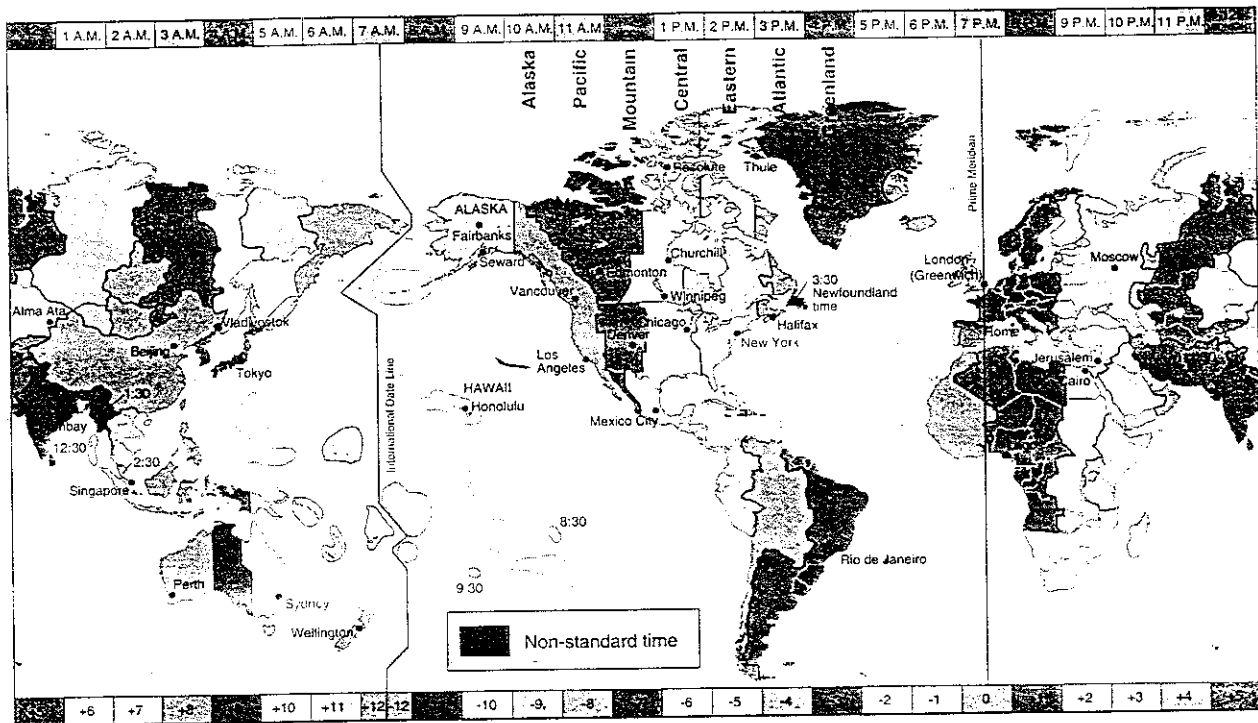


Figure 1-6 Modern international standard time zones. Numbers indicate how many hours each zone is earlier (minus sign) or later (plus sign) than Greenwich Mean Time, today known as Coordinated Universal Time.

2. What is the distance between your college and the standard (controlling) meridian for your time zone? _____ (Use Table 1-1 to calculate this distance.)

How does your distance from the standard meridian affect the agreement between local clocks and actual Sun time (apparent solar time)? _____