

Viewpoints

6.2

I. Latitude and Longitude

- Lines of Latitude and longitude form an imaginary grid system that allows points on Earth to be located exactly

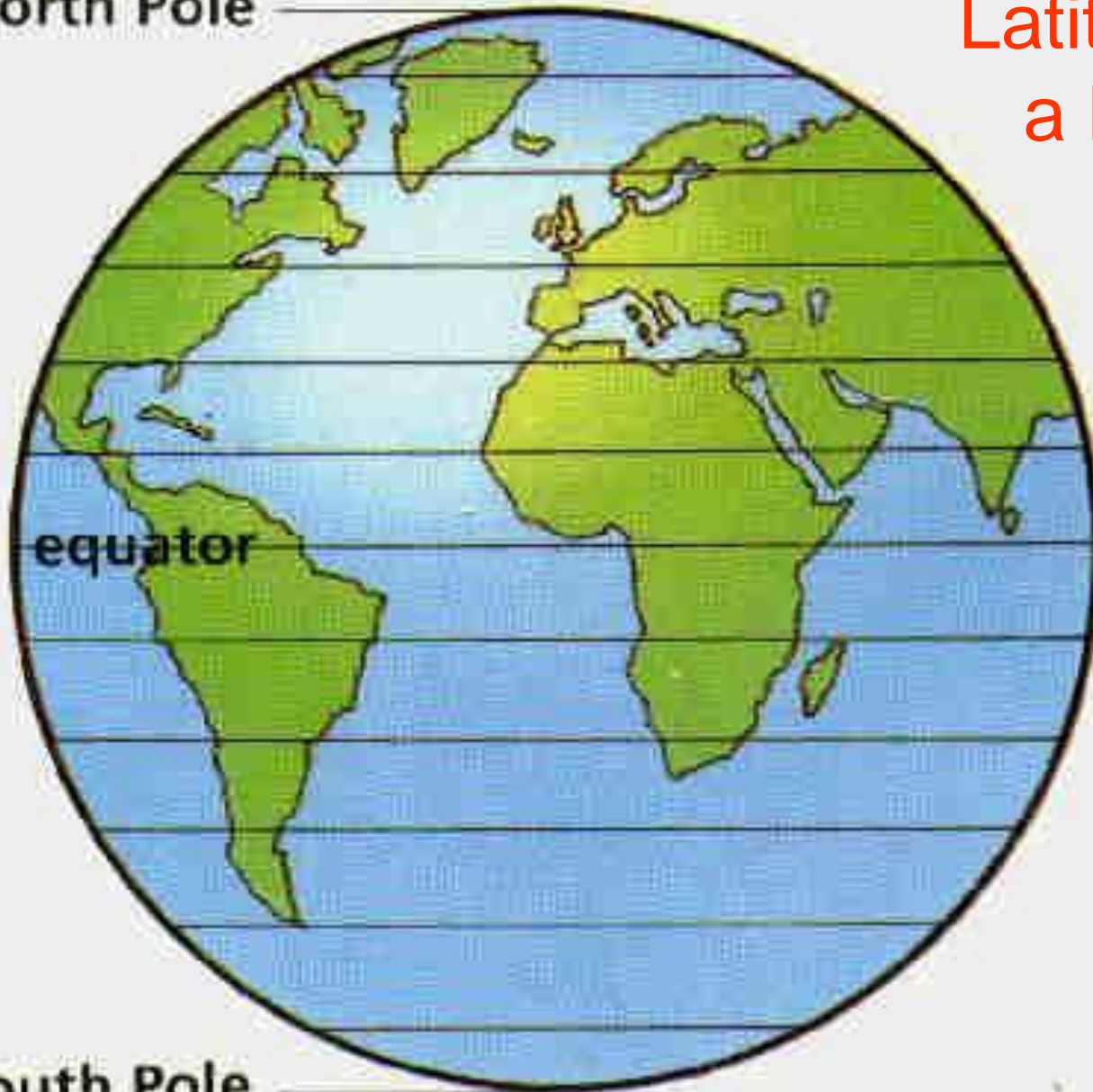
A. Latitude

- a. The equator is an imaginary line that circles Earth exactly halfway between the North and South Poles
 - The equator separates Earth into two equal halves called the northern hemisphere and the southern hemisphere

- b. The lines running parallel to the equator are called the lines of latitude
 - Latitude refers to distance in degrees either north or south of the equator
 - The lines will never intersect

North Pole

Latitude – Like
a Ladder



South Pole

B. Longitude

- a. Vertical lines (up and down) are known as the lines of longitude or the meridians

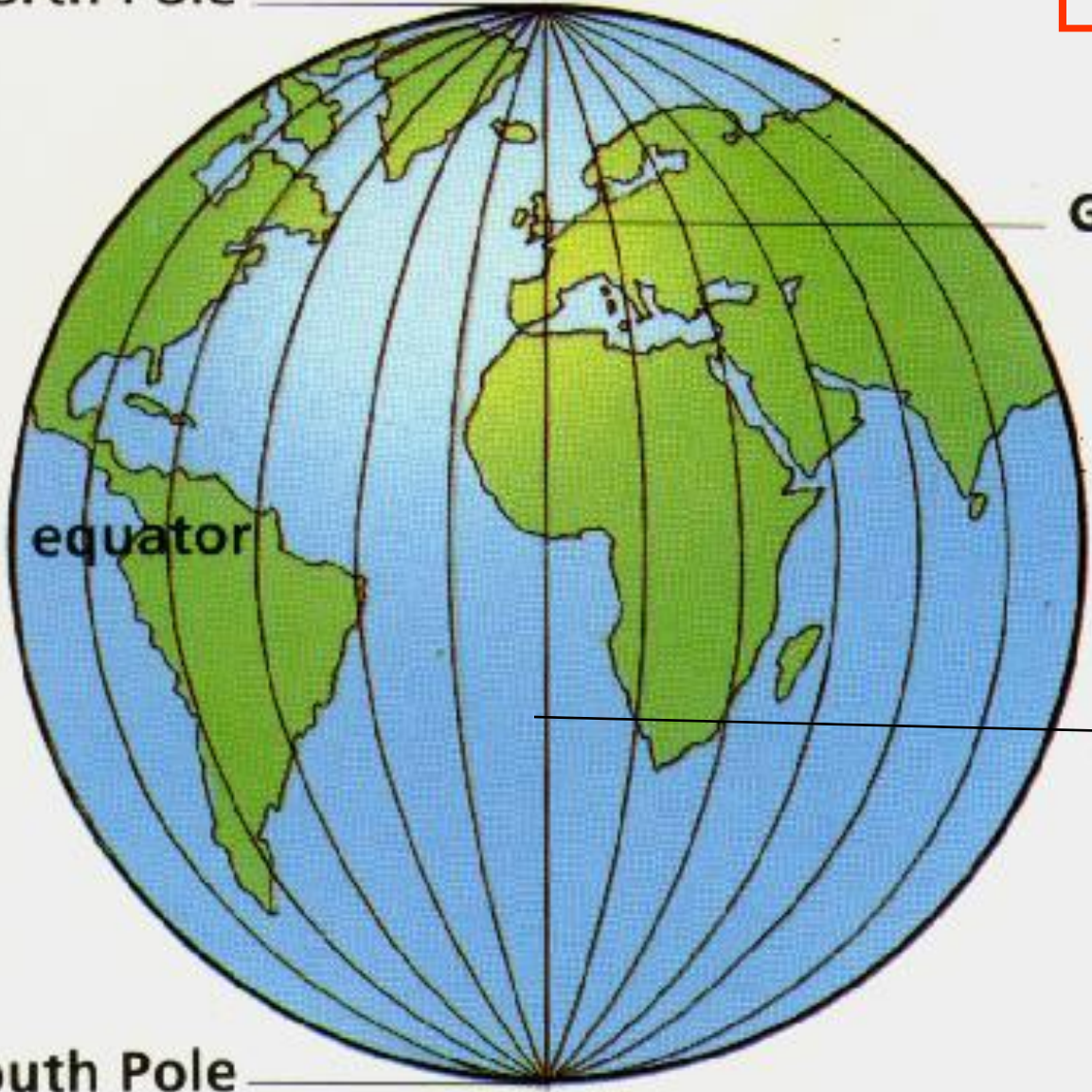
- b. The prime meridian is an imaginary line running from the North Pole to the South Pole passing through Greenwich, England but does not completely circle the Earth
 - It is the 0 degree reference line for longitude

- c. Longitude refers to distances in degrees east or west of the prime meridian

North Pole

Longitude - STRETCH

Greenwich



South Pole

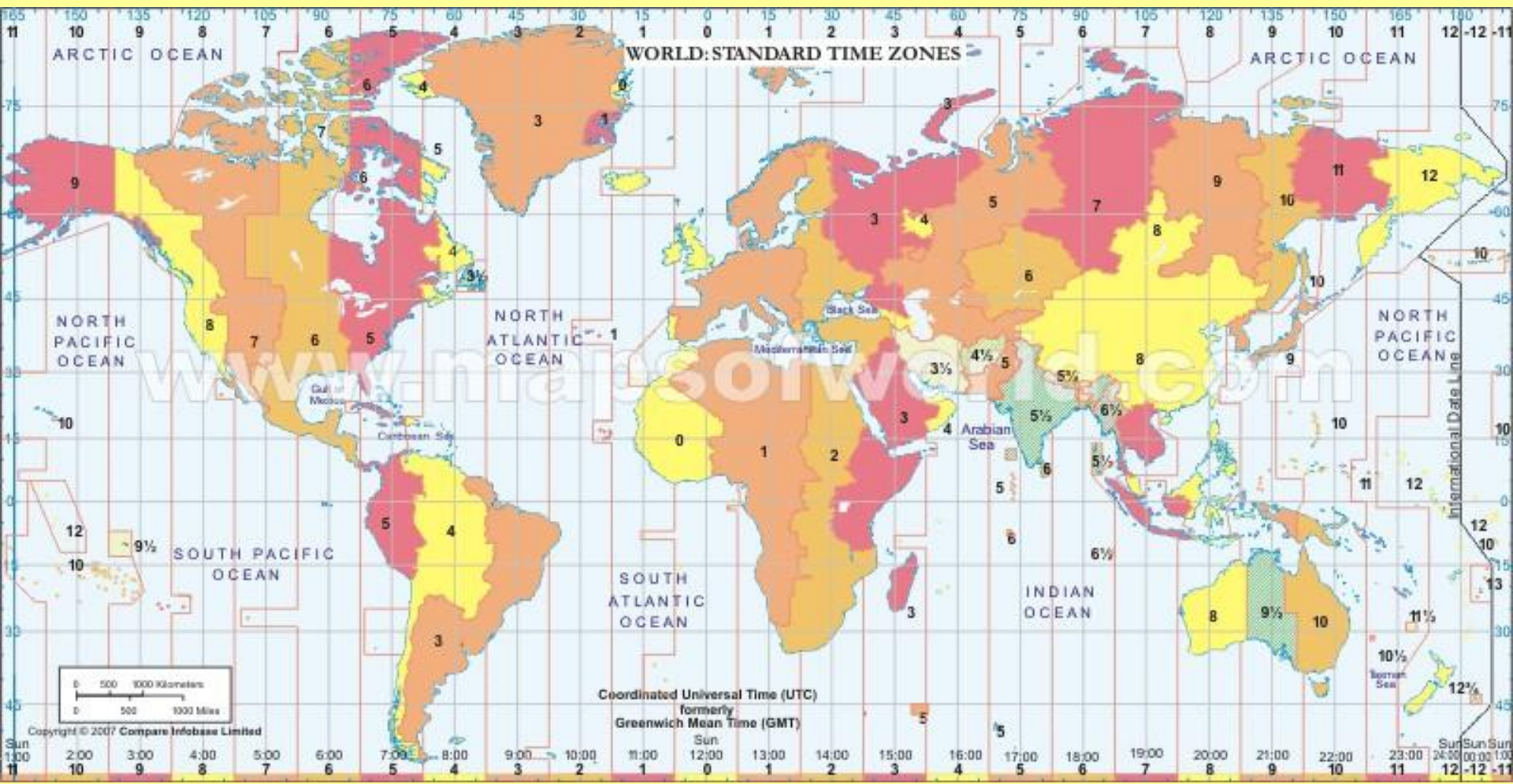
Prime Meridian

II. Earth Time

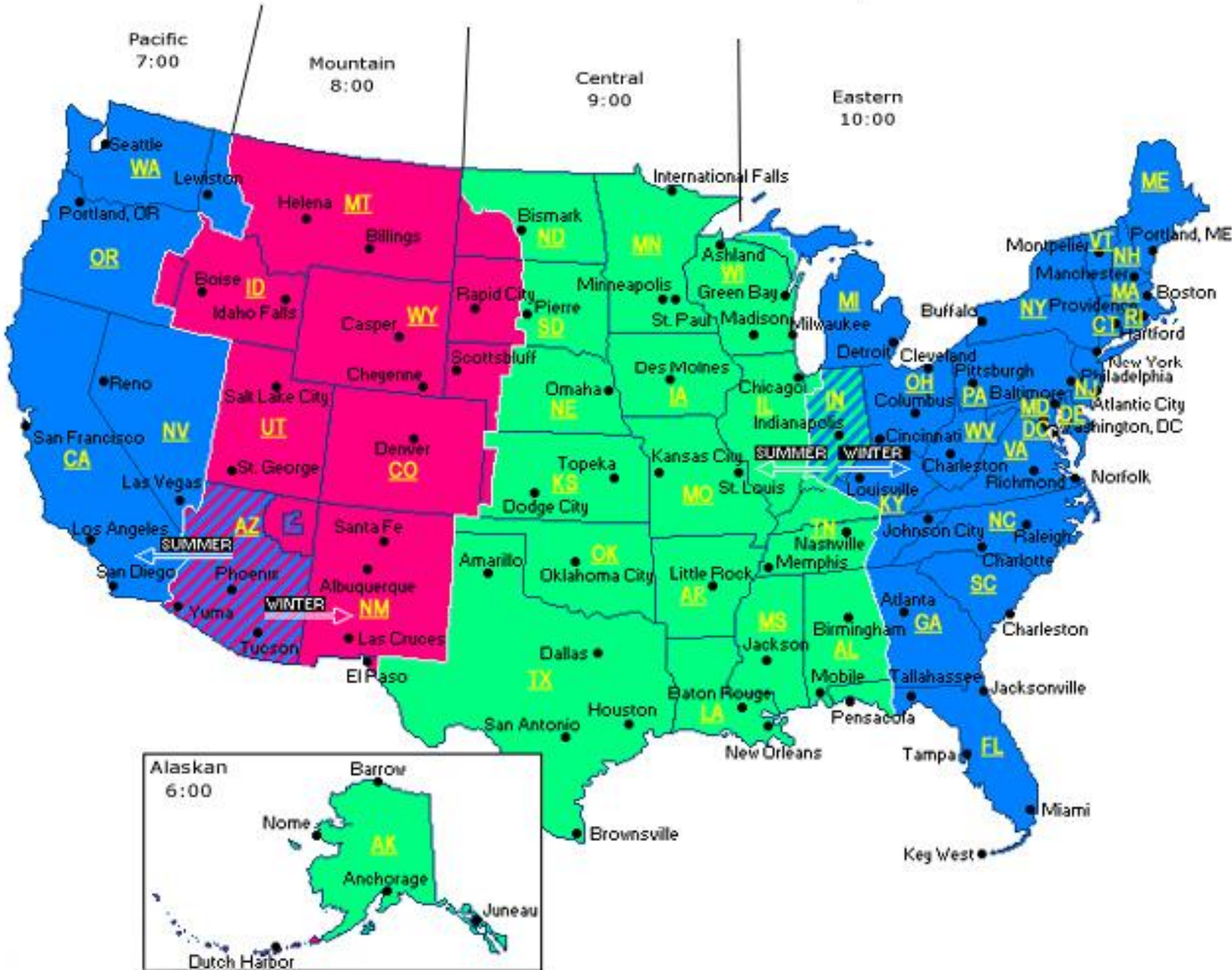
- Earth rotates one full turn every 24 hours
 - When half of the earth is facing the sun and is day time the other half is in darkness and in night time

A. Time Zones

- Earth is divided into time zones
- Because Earth takes 24 hours to rotate it is divided into 24 time zones
 - Time zone boundaries have been adjusted in local areas to outside of cities
 - Pierre and Fort Pierre – different time zones



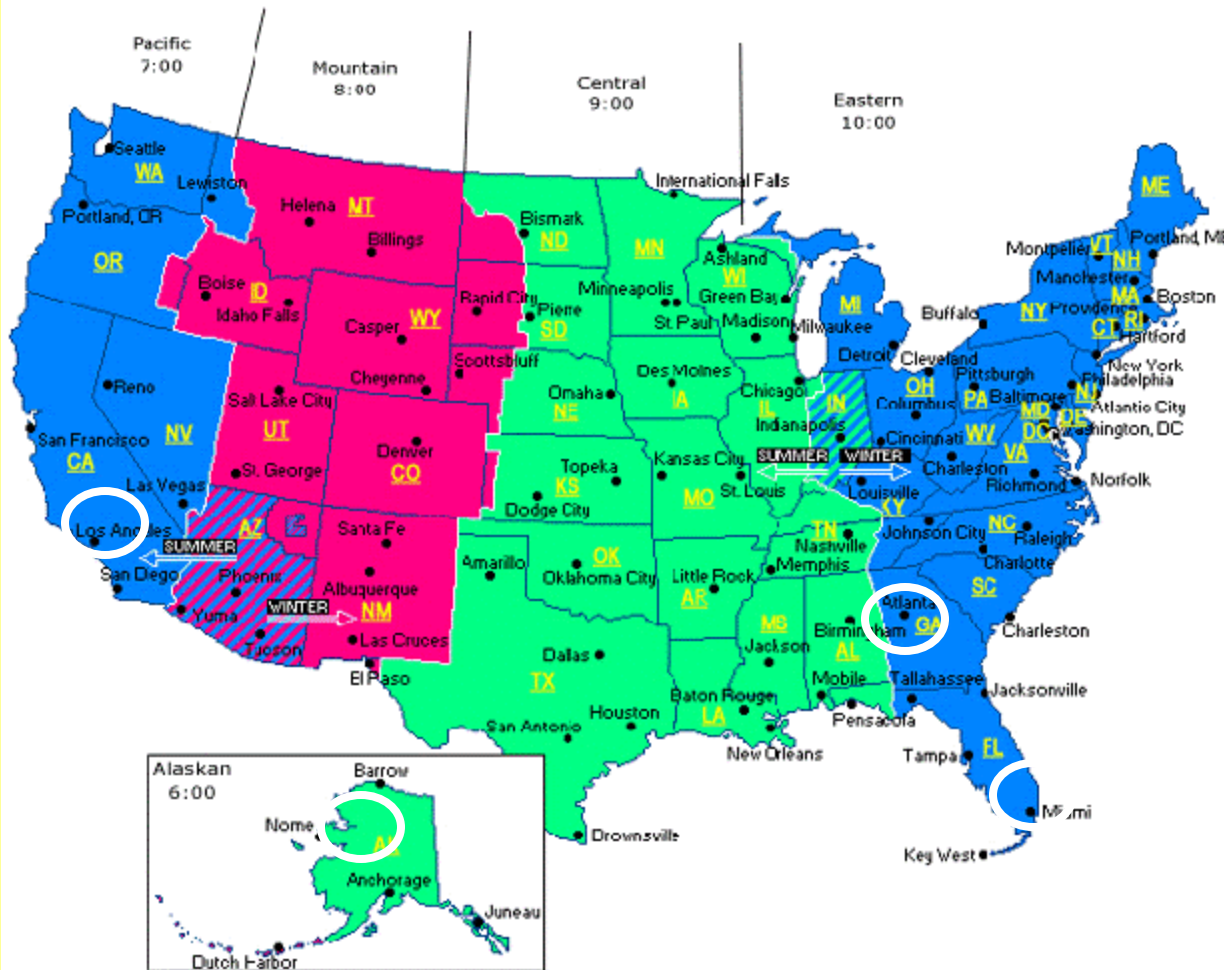
United States Time Zone Map



B. Calendar Days

- You gain or lose time each time you travel through a time zone until at some point you gain or lose a whole day
- The International Date Line is the 180 degree meridian that is the transition line for calendar days
 - If you were traveling west across the International Date Line you would advance your calendar one day
 - If you were traveling east you would move your calendar back one day

United States Time Zone Map



1. If it is 9pm in Atlanta – What time is it in Alaska?

2. If it was 6am in Los Angeles – What time is it in Miami?