

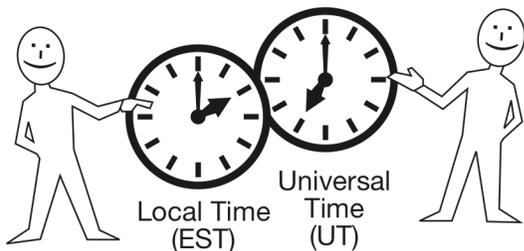
# TIME

The time that the satellite passes overhead is given in Universal Time (UT), which is the time standard worldwide. Unfortunately, the time shown on your watch isn't. Watches are normally set to "local time." It is relatively simple to convert local time into UT. Consult the following table:

USA Time Zone	To change from local time to UT	To change from UT to local time
Eastern Standard Time (EST)	+5 hrs	-5 hrs
Eastern Daylight Time (EDT)	+4 hrs	-4 hrs
Central Standard Time (CST)	+6 hrs	-6 hrs
Central Daylight Time (CDT)	+5 hrs	-5 hrs
Mountain Standard Time (MST)	+7 hrs	-7 hrs
Mountain Daylight Time (MDT)	+6 hrs	-6 hrs
Pacific Standard Time (PST)	+8 hrs	-8 hrs
Pacific Daylight Time (PDT)	+7 hrs	-7 hrs

Conversions for other parts of the world are as follows; but if Daylight Savings Time is in effect the times will need to be adjusted.

City or Region	To change from local time to UT	To change from UT to local time
Samoa	+11 hrs	-11 hrs
Hawaii	+10 hrs	-10 hrs
Alaska	+9 hrs	-9 hrs
Continental USA	See above	See above
Newfoundland	+4 hrs	-4 hrs
Brazilia, Buenos Aires	+3 hrs	-3 hrs
Cape Verdes	+1 hour	-1 hour
Greenwich, Dublin	+/- 0	+/- 0
Rome, Paris, Berlin	-1 hour	+1 hour
Israel, Cairo	-2 hrs	+2 hrs
Moscow, Kuwait	-3 hrs	+3 hrs
Islamabad, Karachi	-5 hrs	+5 hrs
Bangkok, Jakarta	-7 hrs	+7 hrs
Hong Kong, Beijing, Singapore	-8 hrs	+8 hrs
Tokyo, Osaka	-9 hrs	+9 hrs
Sydney, Melbourne, Guam	-10 hrs	+10 hrs
Fiji, Wellington, Auckland	-12 hrs	+12 hrs



# LATITUDE & LONGITUDE

**O** Satellite measurements are mapped in terms of longitude/latitude. To coordinate your observations with the satellite overpass you will need to know the latitude and longitude of your school.

**T** Latitude is a measure of how far north or south of the Equator a place is. It is measured in degrees (°); 90° North is the North Pole; 90° South is the South Pole; and 0° is the Equator.

**U** Longitude is a measure of how far east or west a place is. It is also measured in degrees. 0° longitude runs through Greenwich, England and is called the Prime Meridian. 90° East longitude runs through Bangladesh; 90° West longitude crosses Guatemala; and 180° longitude (East or West, because the Earth is round) runs through the Pacific Ocean and is called the International Dateline.

NASA Langley Research Center:  
 Latitude: 37.09 N  
 Longitude: -76.38 E or 76.38 W  
 or 283.62E

Your school:  
 Latitude: \_\_\_\_\_  
 Longitude: \_\_\_\_\_

