

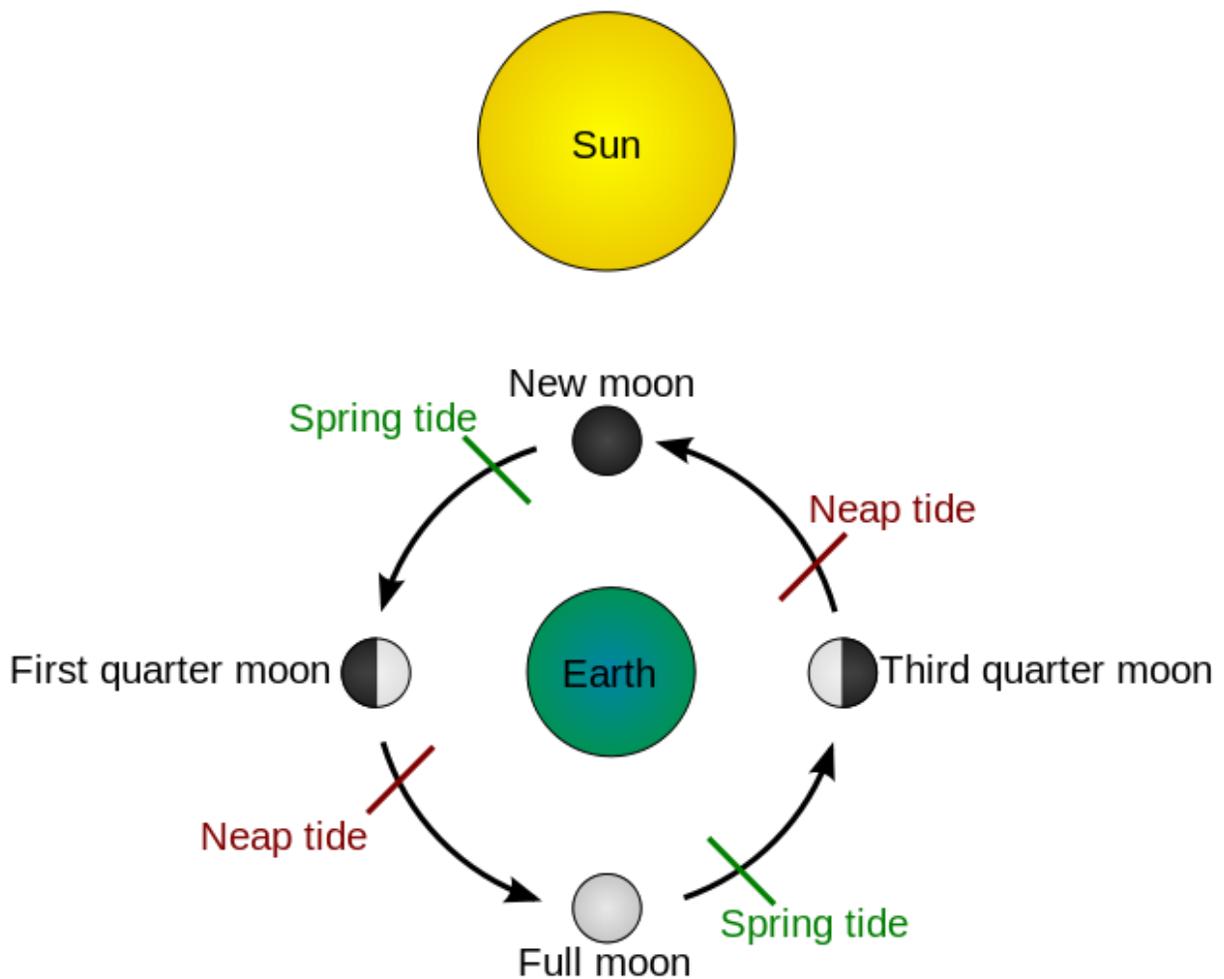
# ASTRONOMICAL ALMANAC

2013

## BELIZE

### Tides

Tides are created because the earth and moon are attracted to each other, just like magnets are attracted to each other. The moon tries to pull at anything on earth to bring it closer. But, the earth is able to hold onto everything except the water. Since the water is always moving, the earth cannot hold onto it, and the moon is able to pull at it. Each day, there are two high tides and two low tides. The ocean is constantly moving from high tide to low tides, and then back to high tide. Usually it takes about 12 hours and 25 minutes between the two high tides. There are different types of tides.



## What is a Lunar Eclipse

A Lunar Eclipse occurs when the Moon passes through the shadow of the Earth. For this to happen the Sun, Earth, and Moon must be closely aligned with the Moon and the Moon located furthest from the Sun. There are a few [different types of Lunar Eclipse](#) that are determined by where the moon is in relationship to the shadow of the Earth.

### **2013 Lunar Eclipses**

|                     |  |   |
|---------------------|--|---|
| <b>Apr 25, 2013</b> | <u>Partial</u> - Will be visible in Europe, Africa, Asia and Australia with a duration of 27m. |   |
| <b>May 25, 2013</b> | <u>Penumbral</u> - Will be visible in the Americas and Africa.                                 |  |
| <b>Oct 18, 2013</b> |  | <u>Penumbral</u> - Will be visible in The Americas, Europe, Africa and Asia.        |

## What is a Solar Eclipse

Solar Eclipses occurs when the Moon passes between the Sun and the Earth and directly blocks the light of the sun. Because the moon is located between the Sun and Earth the dark side of the moon is facing Earth and is in a New Moon phase. Like a Lunar Eclipse there are a few different types of Solar Eclipse depending on the moon's position.

### **2013 Solar Eclipses**

|                     |   |  |
|---------------------|---|--|
| <b>May 10, 2013</b> | <b>Annular</b> - Will be visible in Australia, New Zealand, Central Pacific.<br>Annular North Australia, Solomon Islands and Central Pacific.<br><br>TD of Greatest Eclipse - 00:26:20 UT |  |
| <b>Nov 3, 2013</b>  | <b>Hybrid</b> - Will be visible in Eastern Americas, Southern Europe and Africa.<br>Hybrid: Atlantic, Central Africa<br><br>TD of Greatest Eclipse -12:47:36 UT                           |  |