

From the Skies over Mt. Essex

SKY Events for November 2015 rev

- Nov 1st* -- Daylight Saving Time Ends starts 3/13/2016.
- Nov 2nd* -- Mars < 1° from Venus in Dawn sky.
- Nov 3rd* -- Last Quarter Moon.
- Nov 7th* -- Moon is < 2° from Venus and Mars.
- Nov 8th* – Edmond Halley (Halley’s Comet) born in 1656.
- Nov 11th* -- New Moon .
- Nov 12th* – Voyager 1 flies past Saturn in 1980.
- Nov 18th* -- Leonid meteor shower morning sky, approx 20 meteors/hr. Comet 55P/ Temple-Tuttle, Moon is FQ..
- Nov 19th*-- First Quarter Moon.
- Nov 20th* – Edwin Hubble born 1889, in 1920’s discovered the Milky Way was not the only galaxy.
- Nov 22th* – Uranus is 0.9° S of the Moon AT 19UT (14 EST)
- Nov 25th* - Full Moon “**Snow**” for the English Medieval and the “**Beaver**” for the Colonial American.
- Nov 26th* – Aldebaran in Taurus is 0.7° S of the Moon 10 UT (05 EST).

Planet Lookout at mid-Month

Sunrise 06:49 EST and Sunset 16:51 EST

Mercury Hidden in Sun’s glare all month.

Venus High at Dawn rises 03:01 EST, magnitude -4.3 and 20 arc seconds.

Mars High at Dawn rises 02:30 EST, magnitude +1.6, size 4.5 arc seconds.

Jupiter Dawn, rises 01:30 EST, Magnitude -1.9, size 34.1 arc seconds.

Saturn Dusk sets at 17:39 EST, Magnitude +0.0, size 15.2 arc seconds.

Uranus – Evening sky, rises about 15:09 EST, Magnitude 5.7, size 3.5 arc seconds.

Neptune Evening sky, rises at 13:33 EST. Magnitude +7.9, size 2.4 arc seconds.

Transit vs. Eclipse Spot across the Sun!

A transit describes from the viewers point of view when one celestial body passes in front of another. And eclipse is when the shadow of a celestial body is cast onto another. For the inhabitants of Earth an eclipse is when either the Sun’s light is blocked by the Moon, a Solar Eclipse or when the Earth blocks the Sun light for the Moon, a Lunar Eclipse. The planets Mercury and Venus make a transit when crossing in a direct line between the Earth and the Sun.

On May 9, 2016 and Nov. 11, 2019 the planet Mercury will transit the Sun. All transits of Mercury fall within several days in May and November. Mercury’s orbit is inclined 7° to the Earth orbit; it intersects the ecliptic at two points on those dates. If Mercury passes through an inferior conjunction at that time a transit will occur. Mercury has several transits per century the next ones through 2050 are: 11/11/19, 11/13/32, 11/07/39 and 5/7/49.

The next transits of the planet Venus will occur on December 11, 2117 and December 8, 2125.

Mercury Transit info for 5/9/16 for Baltimore, MD.

Sun rise 05:58 EDT for Baltimore, MD
First Contact 07:12 EDT
Second Contact 07:15 EDT
Greatest Mid-Point 10:57 EDT
Third Contact 14:39 EDT
Forth Contact 14:42 EDT

The Sun’s diameter is 1,902 arc seconds (31.7 arc minutes) Mercury diameter is only 12 arc seconds. The May’s transit of Mercury will approach the Sun from its Eastern limb (left side of the Sun) just south of the Sun’s equator and exits the Sun on the Western limb (right side). The entire transit will transverse the southern half of the Sun. The transit will last 7 hrs and 30 minutes. Mercury will appear to move across the face of the Sun 4.23 arc seconds per minute. This means it will take almost 2 minutes and 50 seconds for Mercury to move 1 planet diameter.

What do I need to see the transit:

1. Clear Sky’s
2. Low Eastern Horizon it starts 1 1/2hrs hrs after sunrise.
3. Proper Solar Filter No 14 Arc-Welder’s filter or better.
4. A small telescope will work with the proper objective filter, or eyepiece projection method. **Don’t use an eyepiece filter.**
5. You can use image projection. The image can be safely projected on paper or a wall without the need of a solar filter.