

Night Sky Viewing at Widener University

November 2009

Sunset & Sunrise Times

	Sunset	Sunrise
Begin Month (EDT)	4:59 pm	6:31 am
End Month (EST)	4:37 pm	7:03 am

Lunar Phases

First Quarter	2 nd	
Full Moon	9 th	"Hunter's Moon" or "Frost Moon"
Last Quarter	16 th	
New Moon	24 th	

Bright Stars & Constellations Visible Around 8 pm EST

Summer Triangle of *Vega* in *Lyra*, *Altair* in *Aquila*, and *Deneb* in *Cygnus* is high in the western sky
The **Great Square of Pegasus** is high in the south
Star *Fomalhaut* in *Pisces Austrinus* is low in the south
Constellation *Cetus*, the Whale, is low in the southeast
Constellation *Cassiopeia* is high in the northeast
Constellation *Perseus* follows *Cassiopeia* high in the northeast
Star *Capella* in *Auriga* is rising in the northeast
Star *Aldebaran* in *Taurus* and star cluster *Pleiades* (7 Sisters) are rising in the east-northeast

Naked Eye Planets This Month in the Evening & Morning Sky

Jupiter. In *Capricornus*. Jupiter continues to reign supreme in the evening sky, despite the fact that its distance from Earth has been increasing since August. Resembling a brilliant cream-colored star, Jupiter passes slowly across the southern sky during the evening hours of November, and sets a little before midnight (EST) at the start of the month. By the 30th, Jupiter sets around 10 pm.

Mars. In *Cancer*. Mars passes through Cancer eastward to the border with Leo during November. Mars is getting gradually brighter as its distance from Earth continues to decrease, eventually reaching its closest approach (and opposition with the Sun) in January 2010. Mars rises around 10:30 pm EST at the start of November and by around 9:30 pm at month's end.

Venus. In *Virgo/Libra*. Venus, which has adorned the early morning sky since last spring, spends this November gradually sinking toward the Sun. It is still quite noticeable, shining brightly like a yellow-white star in the east-northeast during the predawn hours. As November opens, Venus rises around 5 am, and, once it has ascended a generous distance above the horizon, can be spotted a bit below the star Spica in *Virgo*. By month's end, Venus rises a few minutes after 6 am, or less than an hour before sunrise.

Saturn. In *Virgo*. Saturn, having emerged from its conjunction with the Sun back in September, is now a resident of the early morning sky. At the beginning of November, Saturn rises a little before 3 am, and by about 1:30 am on the 30th. Looking east in the predawn sky, Saturn resembles a moderately bright yellow star well to the upper right of Spica.

Mercury. In *Virgo-Libra-Scorpius-Ophiuchus*. Mercury reaches superior conjunction with the Sun on the 5th, and is too close to the Sun for much of this month to be of interest to the unaided eye. At the very end of November, Mercury begins to appear low in the west shortly after sunset.

Leonid Meteor Shower

Expected to reach its peak after midnight on November 16th. Look generally toward the east where the constellation Leo will be rising, although meteors can be seen in any part of the sky.

*For more information on astronomy and weather, visit the Widener University Public Viewing Website at <http://www.widener.edu/stargazing/>. A set of free sky maps can be obtained at <http://www.skymaps.com/>