

Night Sky Viewing at Widener University

January 2018

Sunrise & Sunset Times

	Sunrise	Sunset
Begin Month (EST)	7:23 am	4:47 pm
End Month (EST)	7:10 am	5:20 pm

Lunar Phases



Naked Eye Planets in the Evening & Morning Sky this Month

Venus (*in Sagittarius-Capricornus*): Venus reaches superior conjunction with the Sun on January 9th, and is hidden behind the Sun's glare all month. Toward the end of February, Venus will start to become discernable above the southwestern horizon after sunset.

Mars (*in Libra-Scorpius*): Mars rises in the east a little before 3 am (EST) on New Year's morning, and at 2:30 am at month's end. Mars resembles a modestly bright orange star to the right of Jupiter (see below). On the 7th, Mars and Jupiter are in conjunction, forming a spectacular, tight planetary duo that stands due south around sunrise; the pair then slowly separates as the month progresses. Mars is slowly brightening in anticipation of its closest approach to Earth in July.

Jupiter (*in Libra*): Jupiter, resembling a brilliant cream-colored star, rises with Mars just above the eastern horizon around 3 am in early January. As mentioned above, Jupiter and Mars pass closest to each other on the 7th; afterwards Jupiter pulls ahead of Mars, and by the end of January Jupiter is rising an hour before Mars, at around 1:30 am.

Saturn (*in Sagittarius*): Saturn was in conjunction with the Sun back on December 21st, and as the New Year opens, is still too close to the Sun to be easily spotted in the dawn sky. By midmonth, however, Saturn is rising over an hour before sunrise, and by month's end it is rising 2 hours before the Sun. On the 13th, Saturn and Mercury form a close pair low in the southeast; use binoculars for an especially fine view.

Mercury (*in Ophiuchus-Sagittarius-Capricornus*): As the New Year begins, Mercury is rising over 1½ hours before the Sun, and is in excellent position to be spotted above the southeastern horizon about 30 minutes before sunrise. As a bonus, Saturn passes just above Mercury on the morning of the 13th. Mercury slowly descends toward the horizon during the month, and by month's end has vanished into the dawn glow.

Earth: Earth reaches perihelion, or closest approach to the Sun, on January 3rd, when it will be 3½ % closer to the Sun than it was in July.

Sun: The Sun begins January in the constellation Sagittarius, then crosses into Capricornus on the 19th.

Quadrantid Meteor Shower: Peak intensity occurs on January 3-4. Unfortunately, the waning gibbous moon will wash out most of the fainter meteors.

Constellations & Bright Stars

Visible Around 8 pm EST in January

Cetus – low in SW, getting lower
Bright stars *Diphda, Menkar*

Pegasus (Great Square) – moderately high in W
Bright stars *Scheat, Markab, Algenib*

Andromeda – high in W, above Pegasus
Bright stars *Alpheratz* (NE corner of Great Square),
Mirach, Almach

Aries – high up in SSW, below Andromeda
Bright stars *Hamal, Sheratan*

Cassiopeia – high in NNW, looking like an "M"
Bright stars *Shedar, Caph, Ruchbah*

Perseus – nearly overhead, E of Andromeda
Bright stars *Mirfak* and *Algol*

Auriga – high in NE, E of Perseus
Bright star *Capella*

Taurus – high in S, below Perseus & Auriga
Bright star *Aldebaran*
Star clusters *Pleiades & Hyades*

Orion – up in SE, is highest in S around 10-11 pm
Bright stars *Betelgeuse, Rigel*

Gemini – halfway up in E, to left of Orion
Bright stars *Pollux, Castor*

Canis Major – low in SE, to lower left of *Rigel*
Bright star *Sirius*

Canis Minor – up in E, below Gemini & Orion
Bright star *Procyon*

For more information on the night sky, visit the Widener Observatory Stargazing website at www.widener.edu/stargazing/. A set of free sky maps can be obtained at www.skymaps.com/.