

Astrochart Links:

Here are the views of the sky each night of Pennsic 2012.

Watch for Mars on approach to Saturn and Spica. Venus and Jupiter are prominent morning stars. Look for Mercury from the morning of [August 3](#) onward.

The Perseid meteor shower peaks the night of August 13; watch for it the last weekend of [Pennsic](#).

The star Algol is eclipsed four times by its companion star; watch for it the nights of [July 29](#) and August [1](#), [4](#) & [7](#).

The nearly-full moon makes dimmer stars difficult to see the first week of Pennsic; use it as a night-time clock.

The [International Space Station](#) (ISS) appears overhead a bunch of times, best viewed the nights of August [4](#), [6](#) and [9](#).

Stars begin to come out half an hour after sunset, around 9 o'clock to half past, while optimal viewing starts about 10pm. Check the weather office for [cloud cover forecasts](#) up to two days in advance.

[July 27, 2012](#)

The first night of Pennsic. Now, that it is dark, it's too late to do much but to look at all of the pretty stars. The waxing gibbous moon is moving out of Libra into Scorpio. The Big Dipper is high in the northwest. The stars are just about equally spaced apart.

Use your fingers to calibrate for distance. Starting at the bowl, Dubhe and Merak should be two fingers apart; Merak and Phad, three fingers; Phad and Megrez, two fingers; Megrez and Alioth, two fingers; Alioth and Mizar, two fingers; Mizar and Altaid, three fingers.

If you stretch out your thumb and pinky, you should be able to touch Dubhe and Altaid. Follow the path from Merak and Dubhe up to right for slightly more than this distance to find Polaris.

The pole star, Polaris, has not always been called by that name. Only in the last 350 years has it been close enough (2°, or one finger width, from true north) to be considered the pole star. Before then, it was called Alruccabah.

[July 28, 2012](#)

The waxing gibbous moon is in Scorpio. Look up and find the Big Dipper. Notice how the bowl points towards the western horizon. This is early in the month of Cancer and Leo is setting. All that is left is the little triangle that forms Leo's tail, Zosma, Denebola and Coxa. Mars was in Leo this spring but has moved into Virgo towards Saturn for War.

[July 29, 2012](#)

The waxing gibbous moon is moving out of Scorpio into Sagittarius. As we say "goodbye" to Leo, follow the curve of the handle of the Big Dipper to find a bright star, Arcturus. This is a guide star that helps to find other exciting constellations. Continue on the same path towards the horizon to find three bright stars. The red one on the right is Mars. The white one above is Saturn. The third, two fingers' width below Saturn, is the star Spica. This trio will be visible in the early evening before it's dark enough to see the Big Dipper.

[July 30, 2012](#)

The waxing gibbous moon is in Sagittarius. Find Arcturus again and look way up to the top of the sky. The next bright star is Gemma in Corona Borealis, the Northern Crown. Some children have told me it looks like a happy face, but I do not see it. Continue to the top of the sky and look for four dim stars that form a keystone shape. This is Hercules. (You're in Pennsylvania. If you don't know what a keystone looks like, check out a license plate.)

If you're going to be up past mid-night, I would like to show you [Perseus](#) which is a "Y" shaped constellation next to Cassiopeia. When I look at it I see a hand in side profile, with the wrist at the top, forefinger to the left and thumb on the right. The two brightest stars, Mirfak and Algol, about four fingers apart, form the wrist and thumb, respectively.

[July 31, 2012](#)

The waxing gibbous moon is in Sagittarius. Tomorrow is the full moon, the bane of star gazing, even shooting stars. Still, if you are cuddling with your cutie behind the castle walls, find Hercules again.

Look to the east for three bright stars, widely spaced but high in the sky. The highest, next to Hercules is Vega in Lyra. To the northeast of that, a little less than a pinky-thumb spread, is Deneb. To the southeast of Lyra is Altair, a little more than a pinky-thumb spread. Come back to Vega, a little more than a pinky-thumb spread, and this trio is the Summer Triangle. They are also visible in the twilight just a half hour after sunset.

If you're going to be up past mid-night, I would like to show you [Perseus](#) which is a "Y" shaped constellation next to Cassiopeia. When I look at it I see a hand in side profile, with the wrist at the top, forefinger to the left and thumb on the right. The two brightest stars, Mirfak and Algol, about four fingers apart, form the wrist and thumb, respectively.

[August 1, 2012](#)

The full moon is in Capricorn. Usually, when showing off the night sky, I start with the Big Dipper and then the North Star and then Cassiopeia. The Big Dipper and Cassiopeia never set at this latitude, but the bright moon may prevent optimal viewing.

If you're going to be up past mid-night, I would like to show you [Perseus](#) which is a "Y" shaped constellation next to Cassiopeia. When I look at it I see a hand in side profile, with the wrist at the top, forefinger to the left and thumb on the right. The two brightest stars, Mirfak and Algol, about four fingers apart, form the wrist and thumb, respectively.

Hey! What happened to Algol? Algol is an [eclipsing binary](#) that dims for ten hours every 2 days, 20 hours and 49 minutes.

[August 2, 2012](#)

The waning gibbous moon is moving out of Capricorn into Aquarius. I hope that you have been watching Mars, Saturn and Spica.

The next pair of bright stars to the left of this trio are the two pans of the Balance, Libra. Their names are [Zubenelgenubi](#) and [Zubeneschamali](#) respectively meaning "the southern claw" and "the northern claw". Before the Zodiac was divided into twelve monthly constellations, Libra was part of Scorpius.

The Scorpion is easily recognised by the bright red star [Antares](#) and three dimmer white stars fanned out to the right.

To the left of Scorpius is [Sagittarius](#), the Archer. Right to left, see the tip of the arrow, the arc of the bow, the hand holding the fletch, the elbow and the shoulder. Some say it looks like a teapot, but I don't see it.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

[August 3, 2012](#)

The waning gibbous moon is in Aquarius. The moon rises just after 9pm. At 10pm the moon is three fingers above the horizon, three fingers below Sandalmelik and a fist, six finger widths, to the left of [Deneb Algedi](#). At 11pm, the moon is a pinky-index stretch above the horizon. At midnight, the moon is a pinky-thumb stretch above the horizon in the south-west and 6½ fingers from [Deneb Algedi](#). At 2am, the moon is 7 fingers from [Deneb Algedi](#). At 4am, the moon is 7½ fingers from [Deneb Algedi](#).

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 4, 2012

The waning gibbous moon is in Pisces. I hope that you have been watching Mars, Saturn and Spica. There is a good view of the [ISS at 5am](#).

Before the moon rises, let's revisit some constellations. In the south, find Scorpius and Sagittarius. Up to the left, you'll remember the Summer Triangle of Altair, Deneb and Vega. Altair is next to a dimmer star, Tarazed, about one finger away; Deneb is in the Northern Cross; and Vega is on its own. Continue to the left to find Cassiopeia and Perseus. Now that the sky is dark enough, you will notice that these stars are in the Milky Way (except for Antares and Vega).

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 5, 2012

The waning gibbous moon is in Pisces.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 6, 2012

The waning gibbous moon is in Pisces. The [ISS flies overhead](#) at quarter after 10pm.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 7, 2012

The waning gibbous moon is moving out of Pisces into Aries. I hope that you have been watching Mars, Saturn and Spica.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 8, 2012

The waning gibbous moon is in Aries.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 9, 2012

The waning crescent moon is moving out Aries into Taurus. The [ISS flies past Mars and Saturn](#) at 11pm.

Now would be a good time to stay up all night or at least wake up before the dawn. At this latitude, [Mercury](#) is visible only twice a year, in the evening near the spring equinox and in the morning near the autumnal equinox. Use Castor and Pollux in [Gemini](#) as your guide stars.

August 10, 2012

The waning crescent moon is in Taurus, about an hour before dawn. Since you are still up, why not stay up and watch [Jupiter](#), [Venus](#) and [Mercury](#) rise?

August 11, 2012

Why are you still here? It's time to go home now.

Top 10 Easiest Constellations to Find

1. [The Big Dipper](#)
2. [Orion](#)
3. [Cassiopeia](#)
4. [Leo](#)
5. [Taurus](#)
6. [Cygnus](#)
7. [Gemini](#)
8. [Sagittarius](#)
9. [Scorpius](#)
10. [Andromeda/Pegasus](#)

Four places to look in the sky

1. The North
 - o [The Big Dipper](#)
 - o [The Little Dipper](#)
 - o [Draco](#)
 - o [Cassiopeia](#)
 - o [Cepheus](#)
2. The Zodiac
 - o [Leo](#)
 - o [Virgo](#)
 - o [Libra](#)
 - o [Scorpius](#)
 - o [Sagittarius](#)
 - o [Capricorn](#)
 - o [Aquarius](#)
 - o [Pisces](#)
 - o [Aries](#)
 - o [Taurus](#)
 - o [Gemini](#)
 - o [Cancer](#)

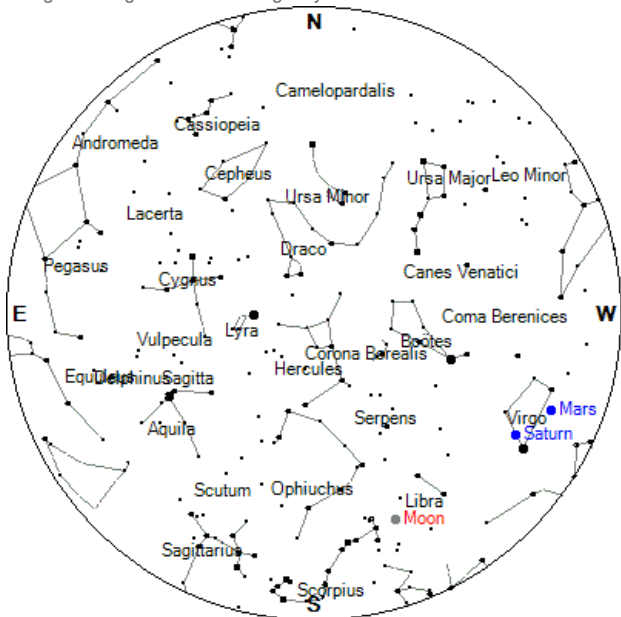
- 3. The Milky Way
 - o Orion
 - o Cassiopeia
 - o Sagittarius
 - o Scorpius
 - o Cygnus
- 4. The Zenith – Straight up
 - o Hercules
 - o The Summer Triangle
 - o Pegasus
 - o Perseus and Andromeda

Variable stars

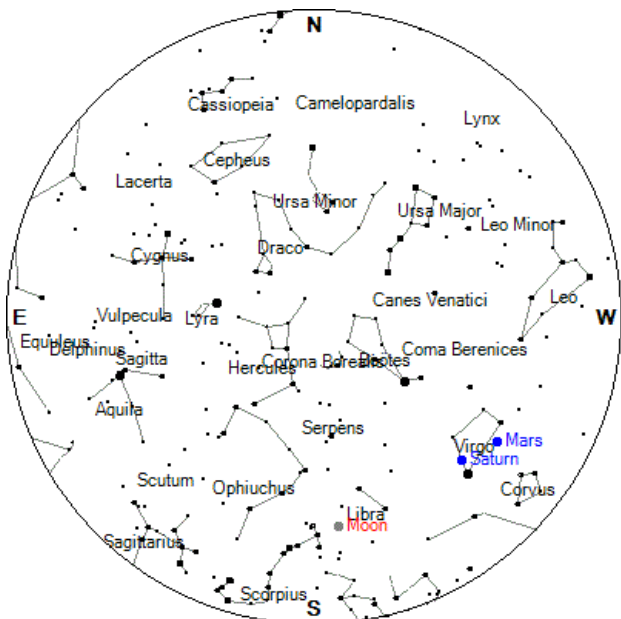
Three well known (among astrologers) variable stars are visibly differentiated by the naked eye, Algol, Gorgonea Tertia and Mira. Algol, or **Beta Persei**, is an eclipsing binary with a period of 68 hours. Gorgonea Tertia, or **Rho Persei**, is a pulsating, red giant with a period of 50 days. Mira, or **Omicron Ceti**, is also a pulsating, red giant, but with a period of 11 months.

Mars Attacks!

Mars, as the red planet, will fight for the purple team, the East and Middle.
 Saturn will defend representing the green team, Æthelmarc, Atlantia and their allies.
 Spica will represent Virgo.
 The goal is to get closest to the girl by the end of War.

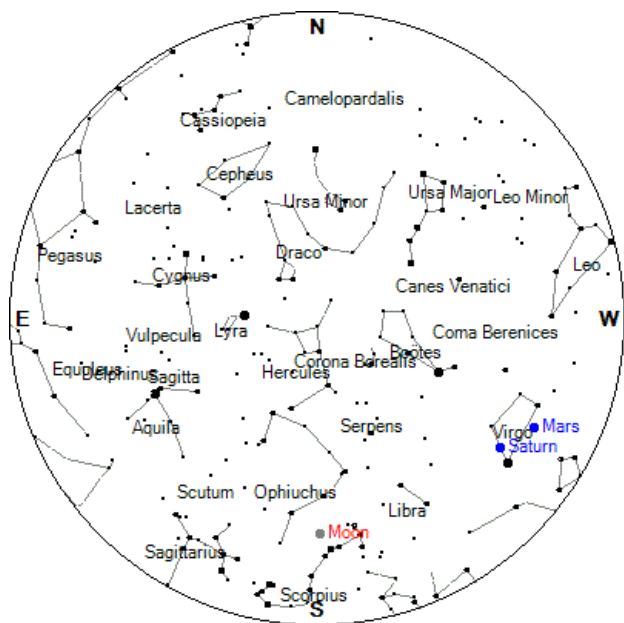


July 27, 10:00 PM

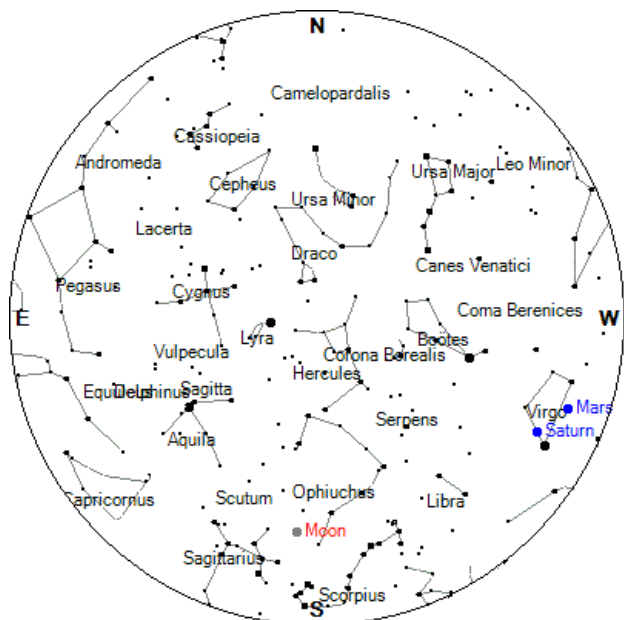


July 27, 9:00 PM

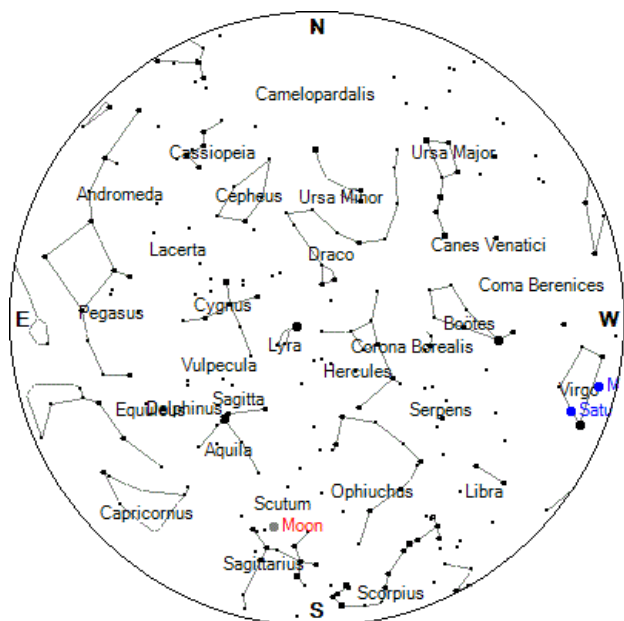
The waxing gibbous moon is moving out of Libra into Scorpio.
 Say "goodbye" to Leo.



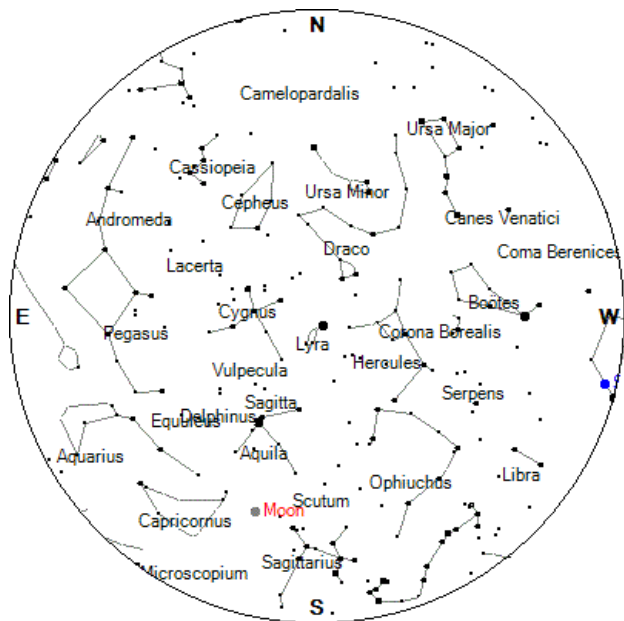
July 28, 9:36 PM
The waxing gibbous moon is in Scorpio.



July 29, 10:12 PM
The waxing gibbous moon is moving out of Scorpio into Sagittarius.

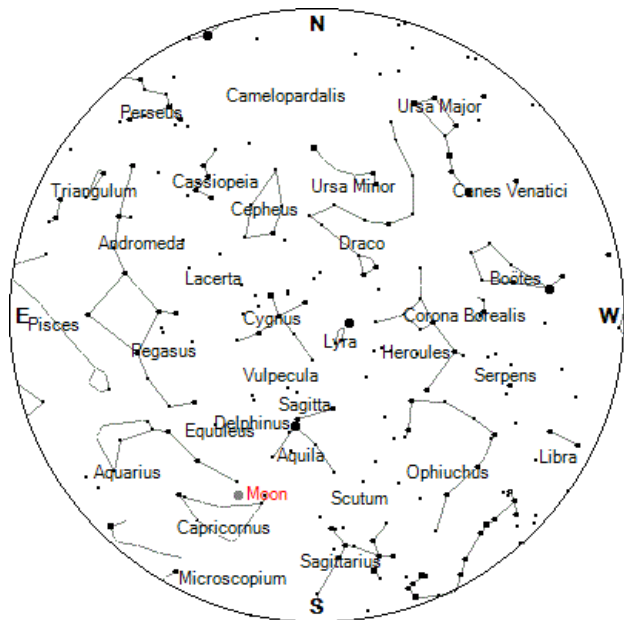


July 30, 10:48 PM
The waxing gibbous moon is in Sagittarius.



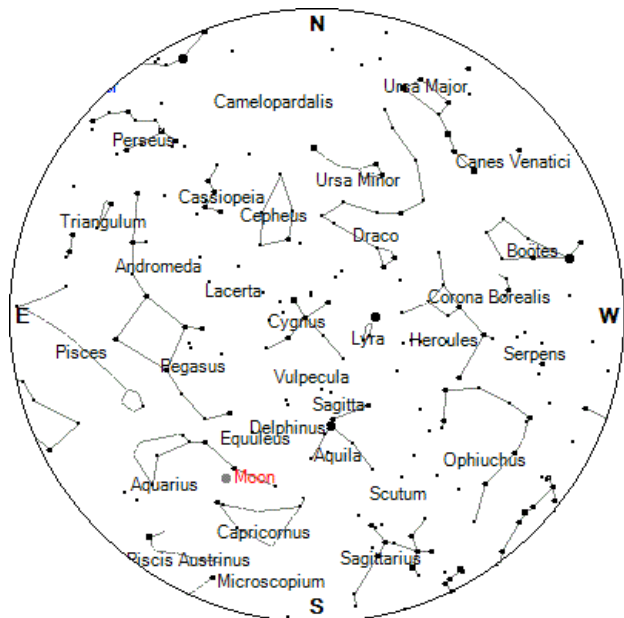
July 31, 11:24 PM

The waxing gibbous moon is in Sagittarius.



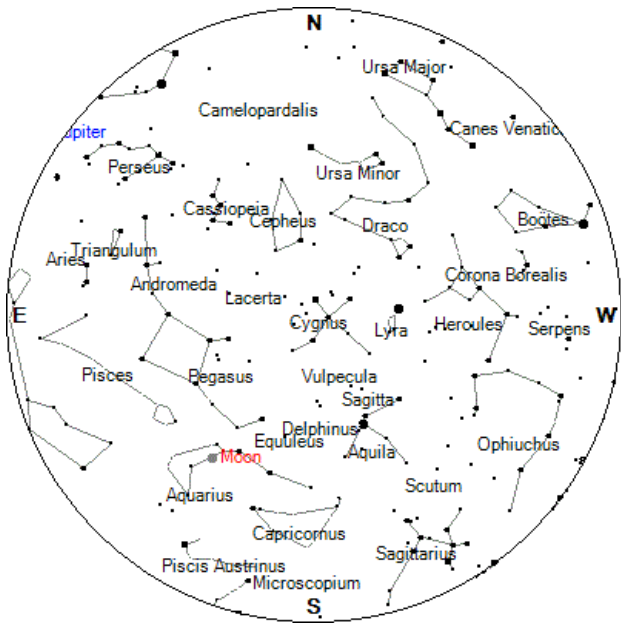
August 2, 12:00 AM

The full moon is in Capricorn.



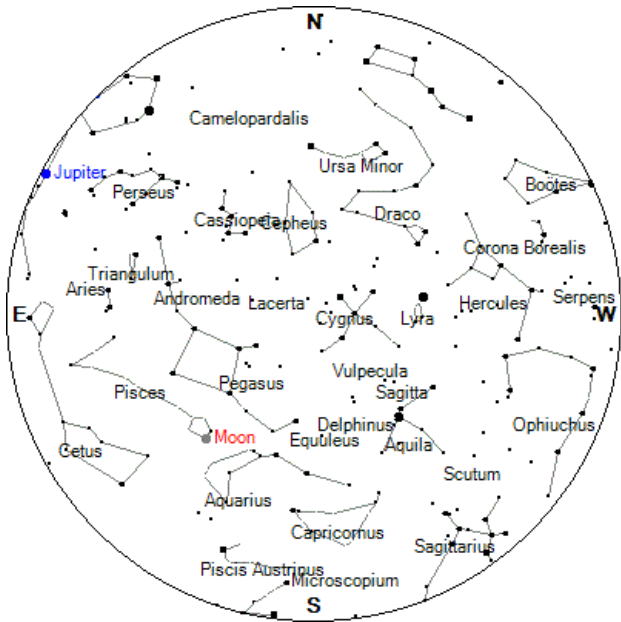
August 3, 12:36 AM

The waning gibbous moon is moving out of Capricorn into Aquarius.



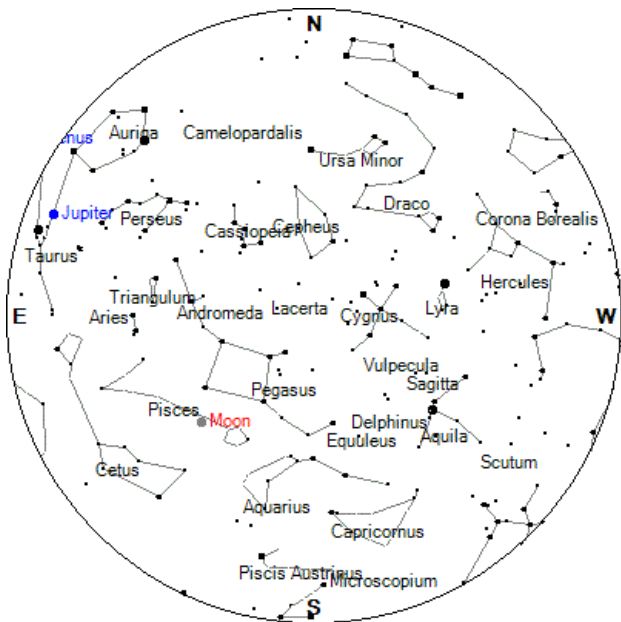
August 4, 1:12 AM

The waning gibbous moon is in Aquarius.



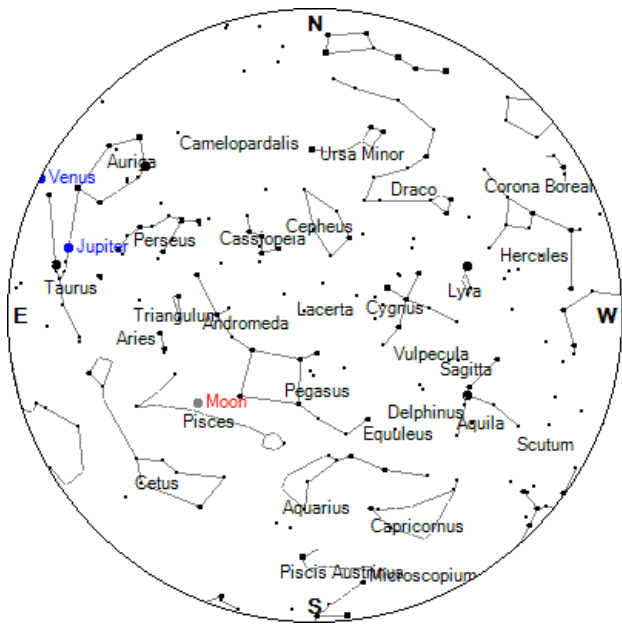
August 5, 1:48 AM

The waning gibbous moon is in Pisces.



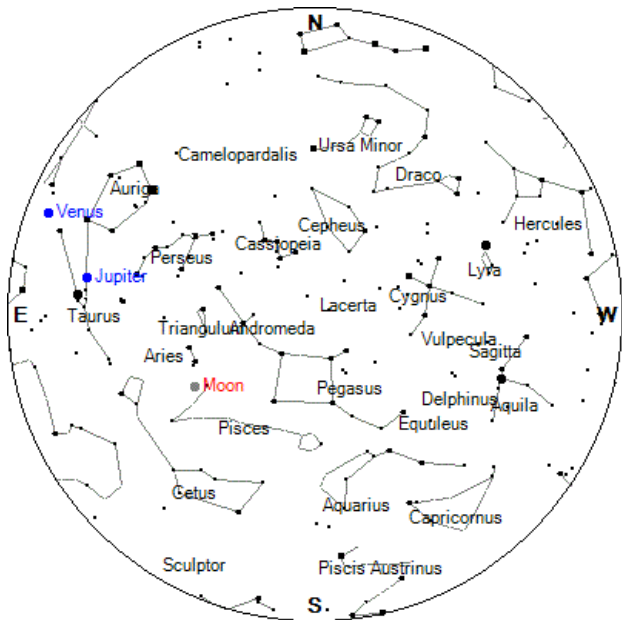
August 6, 2:24 AM

The waning gibbous moon is in Pisces.



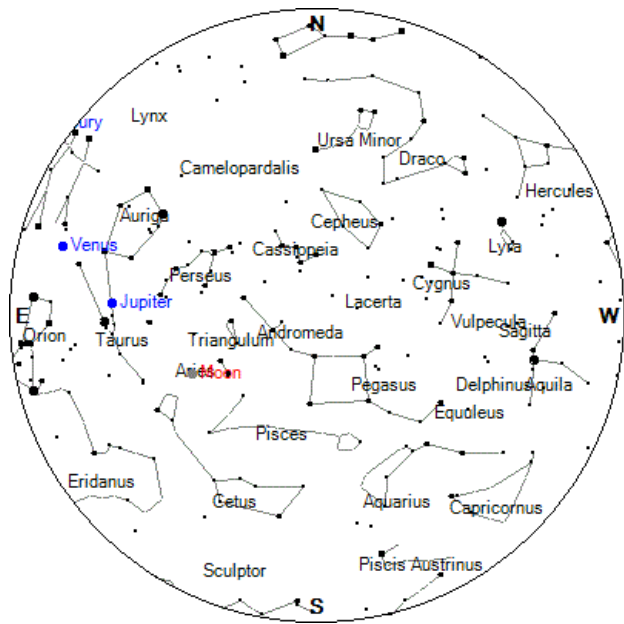
August 7, 3:00 AM

The waning gibbous moon is in Pisces.

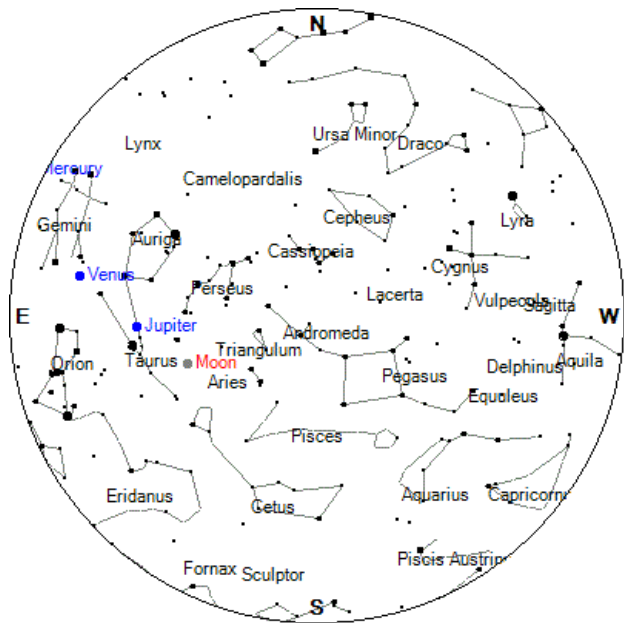


August 8, 3:36 AM

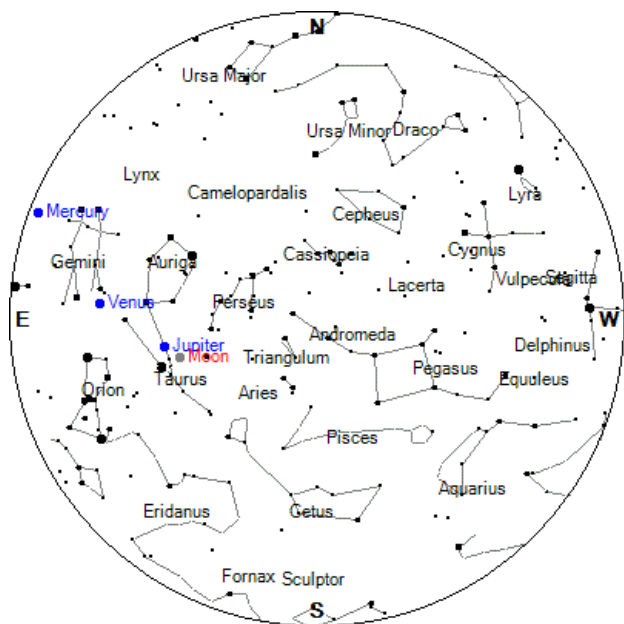
The waning gibbous moon is moving out of Pisces into Aries.



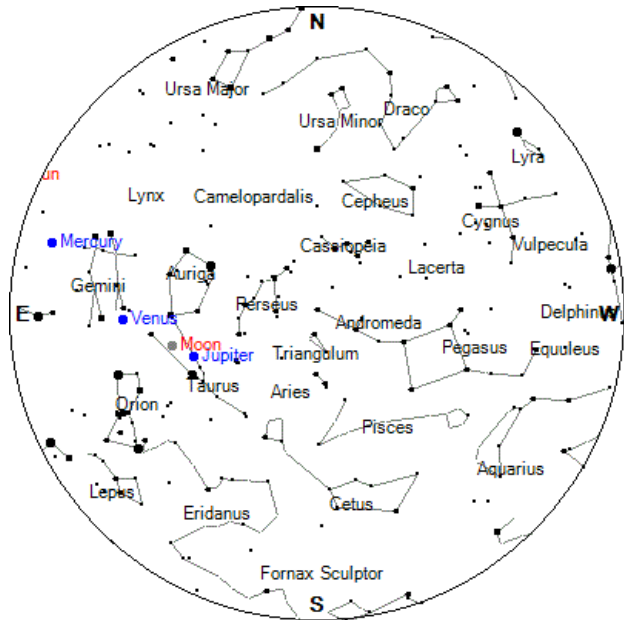
August 9, 4:12 AM
The waning gibbous moon is in Aries.



August 10, 4:48 AM
The waning crescent moon is moving out Aries into Taurus.



August 11, 5:24 AM
The waning crescent moon is in Taurus.



August 12, 6:00 AM

The waning crescent moon is in Taurus.