

The Street Astronomer's Guide to the Planets for Summer 2015

The Sun

The sun is 865,000 miles in diameter. On a scale of one yard equals one million miles, the sun is 31 inches across (about the size of a beach ball).

Zodiacal Light

The Zodiacal Light is not visible until September. Begin looking for it in the east more than an hour before sunrise from the 13th to the 28th of September. It will be visible as a tilted pillar of light from a dark location.

Mercury

Mercury is usually a difficult planet to see as it never travels very far from the sun. The innermost planet makes no appearance this summer. It will next be visible in the morning in mid-October.

(At our scale, Mercury is 36 yards away from the sun and 1/10 inches in diameter)

Venus

The Evening Star appears as the brightest "star" in the west. It gets lower each evening and disappears by the end of July. At the end of June and beginning of July, Venus and Jupiter appear very close to each other in the low west. Venus reappears as the Morning Star in the low east by the beginning of September. A good pair of binoculars, spotting scope, or small telescope will show a crescent Venus during September. In color, Venus is a brilliant white.

(At our scale, Venus is 67 yards away from sun and ¼ of an inch in diameter)

Earth

Summer (the summer solstice) begins on June 21, 2015 at 10:38 AM

(At our scale, Earth is 93 yards from the sun and ¼ of an inch in diameter)

Mars

The Red Planet is too close to the sun to be visible until it becomes a morning planet by mid-August (it appears by the thin crescent moon on August 12th).

(At our scale, Mars is 140 yards away from sun and 1/8 inches in diameter)

Jupiter

The King of the Planets, like Venus, is an evening planet that approaches too close to the sun to be seen by the end of July. Jupiter reappears as a morning planet in mid-September. Binoculars (if held steady) will show the retinue of its four largest satellites.

(At our scale, Jupiter is .27 miles away from the sun and 2.75 inches in diameter)

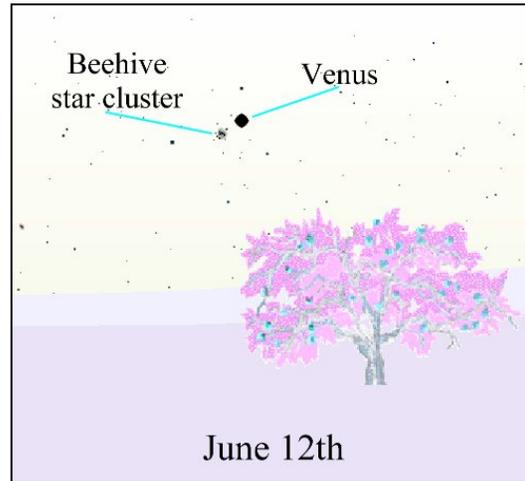
Saturn

The solar system's ringed jewel is visible in the southeast evenings after 7:00 PM this summer. Saturn rises earlier each night and remains visible all summer. Saturn is golden yellow in color.

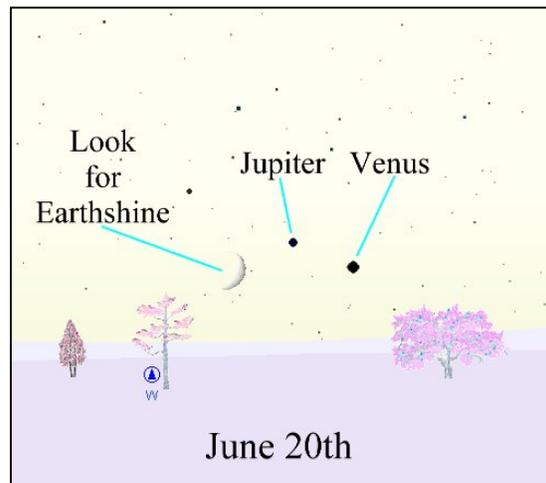
(At our scale, Saturn ½ miles away from the sun and 2.3 inches in diameter)

Venus Charts

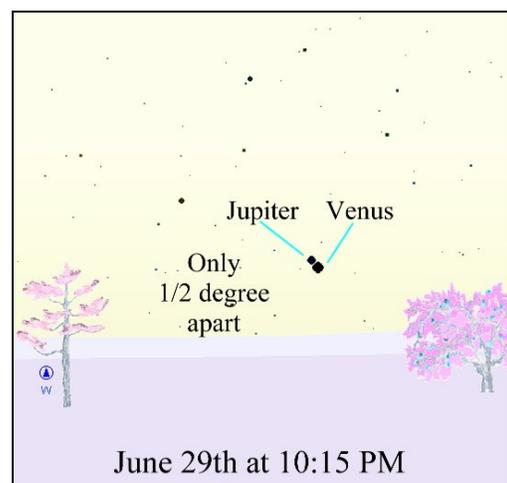
Use binoculars to see the Beehive star cluster. Wait until about 10:45 PM for the sky to get dark enough.



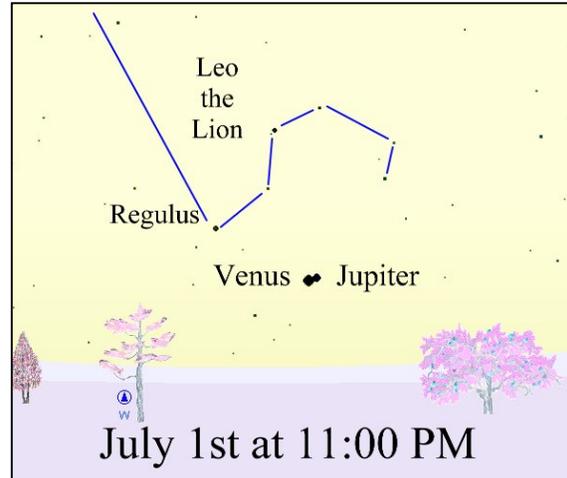
Binoculars will show sunlight reflected from Earth shining on the dark portion of the moon. A pair of binoculars will show several of Jupiter's major satellites.



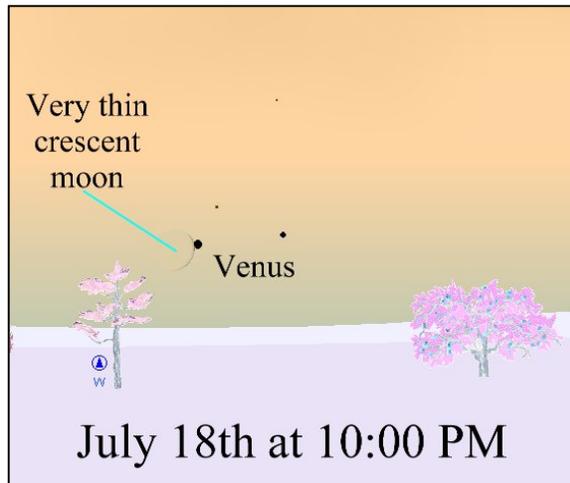
Jupiter and Venus, the two brightest "stars" will be very close together for the next few days.



The distance between Jupiter and Venus is the same apparent diameter of the moon.



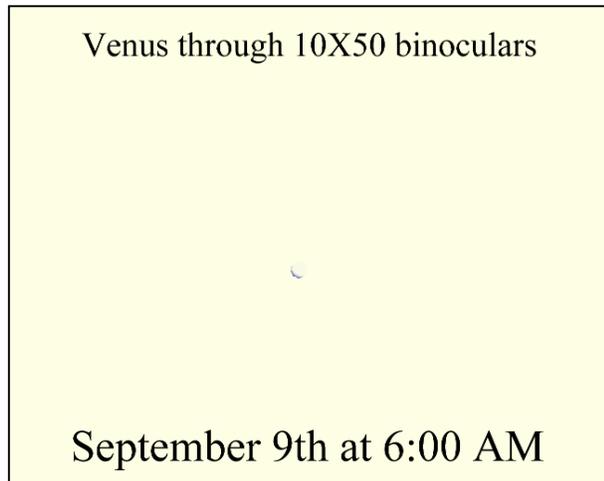
Difficult to see since it occurs very low to the horizon. Use binoculars for your best view. The star to the right of Venus is Regulus, the brightest star of Leo the Lion.



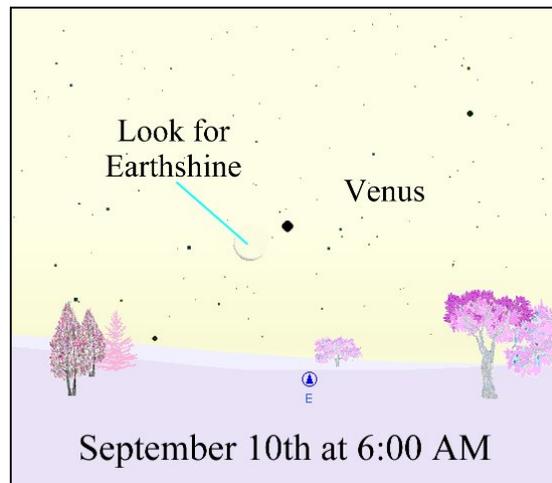
Venus becomes the Morning Star in September. Look for Earthshine on the dark portion of the moon through binoculars.



A good pair of binoculars, spotting scope, or even a small telescope will show the phase of Venus. Your best view occurs if you prop the binoculars on something stationary and if the sky is beginning to brighten. Over the next few weeks Venus will become smaller and fuller.



Nice grouping between the moon and Venus. Use binoculars and look for Earthshine.



Saturn Charts

Saturn travels from east to west this summer. It begins in Scorpius the Scorpion and ends up in Libra the Scales by September.

