THE SKY THIS MONTH

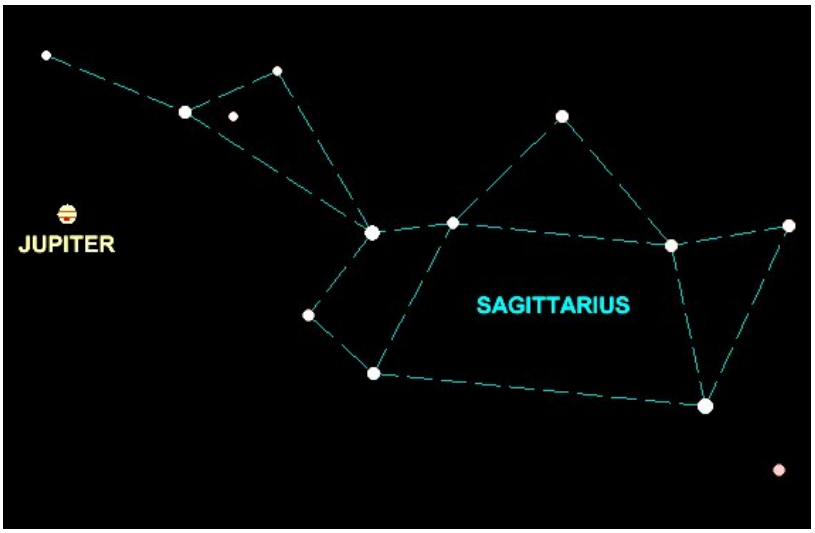
JUNE 2008

THE SUMMER SKIES BEGIN WITH JUPITER

In the past several weeks, you might have seen a very bright object in your south-eastern dawn sky. You might have thought that this object was Venus, but think again! It is more likely that you have seen Jupiter, the second brightest planet in the sky (after Venus).

This month, Jupiter will be the beacon of the late evening sky in the constellation of Sagittarius (the Archer). On June 1st, Jupiter will rise at 11:30 p.m. in your south-eastern sky. By June 30th, Jupiter will rise two hours earlier at 9:30 p.m.

With the naked eye, Jupiter looks like a brilliant white point of light that will easily outshine all of the summer stars in your sky. This year, Jupiter can only get as high as 23 degrees above your southern horizon.



This summer, Jupiter will be hanging out in the southern constellation of Sagittarius.

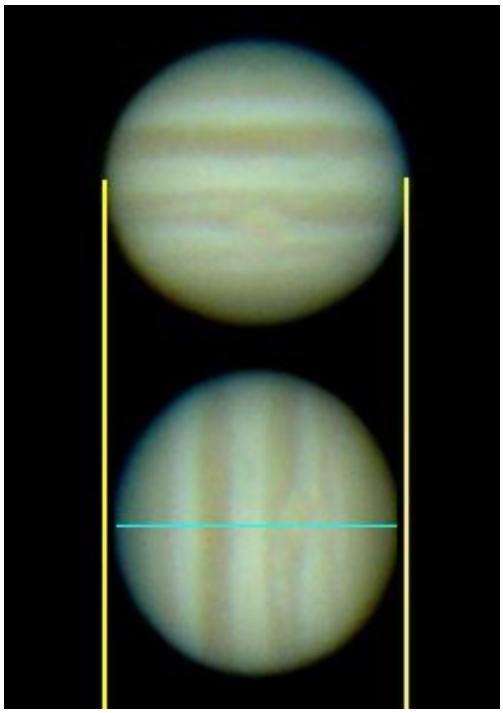
With a diameter of 143,000 kilometres (over eleven times the Earth's diameter), Jupiter is the largest planet of our Solar System. Approximately 1,300

Earths would fit inside it! Jupiter’s immense size also means an immense mass of 318 times that of the Earth.

The comparative sizes of Jupiter and our modest Earth.

Jupiter is over five times our distance from the Sun. A person standing on Jupiter would see our Sun only one fifth as large as we see it on Earth.

Jupiter takes 11.85 Earth years to orbit the Sun once. Despite its long year, Jupiter has a very fast rotation period of only 9.8 hours, causing a bulge at its equator and a flattening of its poles. Its pole-to-pole diameter is nearly 10,000 kilometres smaller than its equatorial diameter! This makes the planet appear slightly oval in shape.

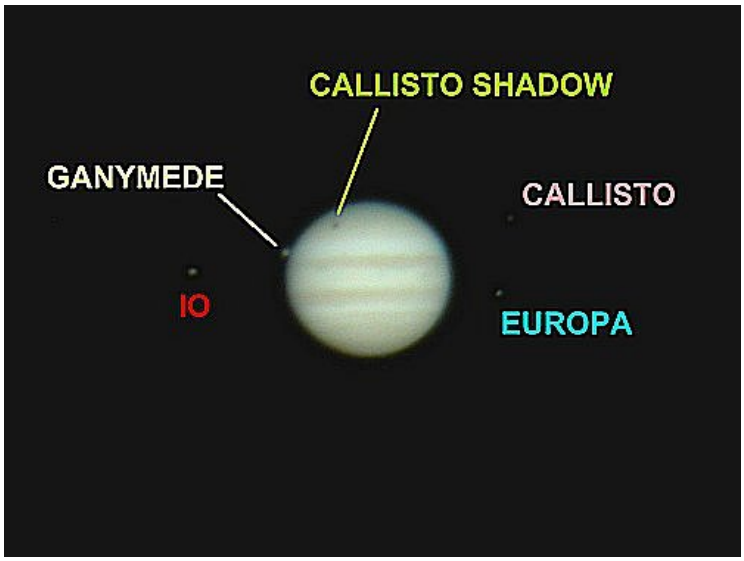


Jupiter’s polar diameter is smaller than its equatorial diameter. Image by the author.

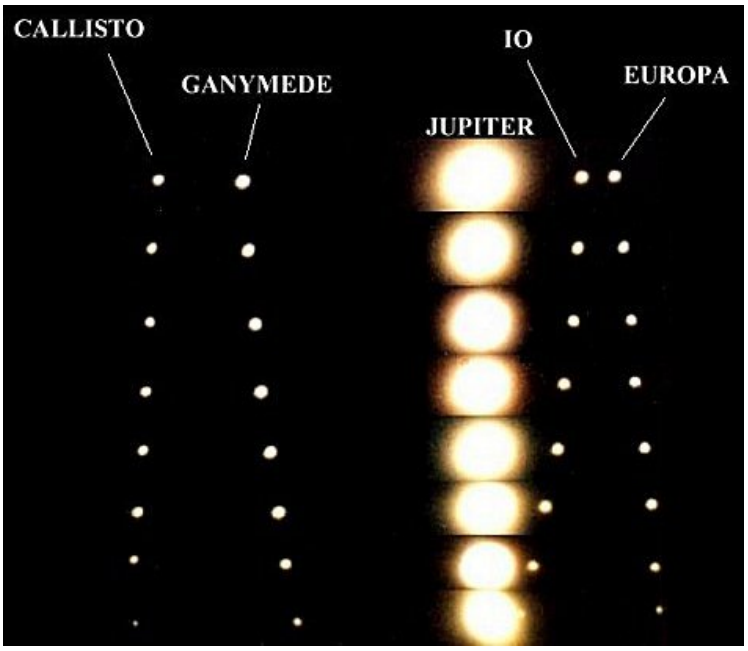
Looking at Jupiter through your binoculars or small telescope, you might see up to four dimmer objects near it. These are Jupiter’s “Galilean satellites”, named for the Italian astronomer Galileo Galilei who discovered them in 1610.

Galileo named these four moons Io, Europa, Ganymede and Callisto. All four of these moons are worlds in their own right. Ganymede and Callisto are both larger than the planet Mercury!

The Galilean satellites are only four of the 63 known moons orbiting Jupiter. Most of the smaller moons are too dim to view with a small telescope on Earth.

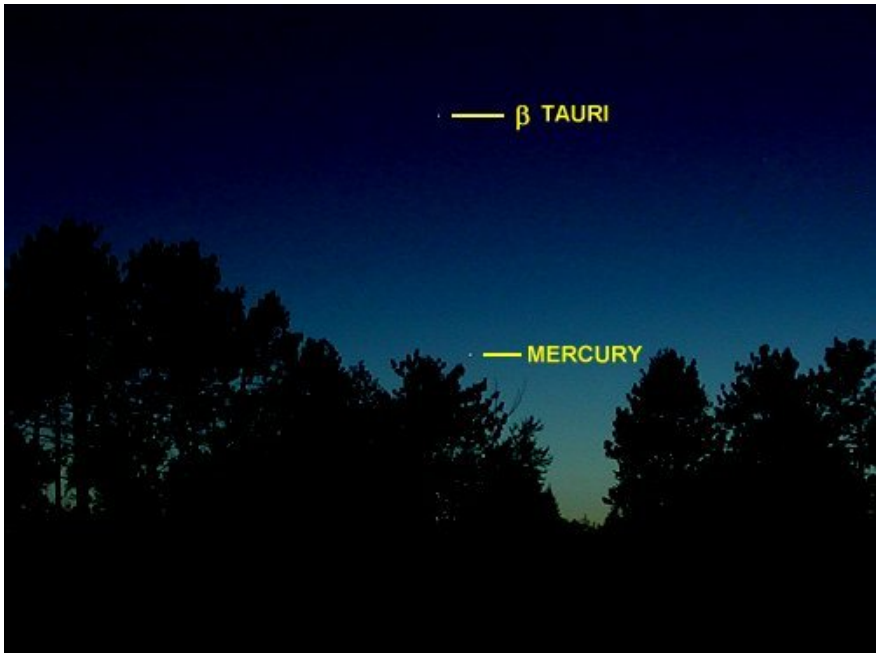


The four Galilean satellites are seen in this image by the author. Callisto is seen casting its shadow on Jupiter's face, causing a solar eclipse in Jupiter's northern latitudes.



The four Galilean satellites orbit Jupiter. Notice how quickly the moon Io moves! Image by the author.

THE SKY LAST MONTH – MAY 2008



Mercury pays a visit to the dusk skies of the Mill of Kintail in May. Image by the author; 9:30 p.m. EDT May 16th, 2008.

THE SKY NEXT MONTH – JULY 2008

MARS AND SATURN GET COZY

Past Issues: **www.castor2.ca/skythismonth**

Contact the Author: **skythismonth@castor2.ca**