See Jupiter Now

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February 22, 2014

Jupiter was closest to Earth at the beginning of January 2014.
However, this remarkable object remains the planet to observe for the next three months with breathtaking views when seen through a telescope. In fact, this planet's present apparition remains best for Northern Hemisphere observers for several years

Have you seen Jupiter this winter? Its 2013-2014 apparition has the giant planet far north of the celestial equator. It rarely gets higher. Currently in Gemini, Jupiter remains about 23 degrees north of the celestial equator through spring and is now nearly overhead in early evening. This helps produce steady telescopic images and allows visibility for longer periods during the night.

In fact, Jupiter's current apparition presents the best opportunities for Northern Hemisphere observers to view this planet for the next several years.

Late next winter Jupiter will have moved eastward and about five degrees south of its present position where it will sit near the eastern edge of Cancer. By 2016 Jupiter will reside only approximately five degrees north of the celestial equator near the eastern edge of Leo.

Then, for about a half dozen years after that, Jupiter will be south of the celestial equator and more poorly placed for Northern Hemisphere observers. (Due to Jupiter's twelve year orbital period, this bright planet moves eastward approximately one-twelfth of the way around the celestial sphere each year, or roughly one zodiacal constellation.)

Jupiter has one of the best "wow" factors for both beginning and advanced star gazers. Observers can often discern at least a half dozen features even with small scopes.

Highlights include **(1)** the largest apparent disk (often more than 40 arc seconds) of any planet (except Venus when a large crescent); **(2)** up to four big, bright Galilean satellites (if not in occultation or transit); **(3)** occasional satellite shadows crossing Jupiter's disk; **(4)** cloud bands (usually at least two with several more possible); **(5)** limb and polar darkening; **(6)** the Great Red Spot (if facing Earth); and **(7)** Jupiter's oblate shape. (Jupiter is not round—its polar diameter is about 1/15 less than its equatorial diameter.)

A recent photo (2014 Feb. 10) of Jupiter and its Galilean satellites is on the next page showing what one might expect to see through a small telescope. Most of these features are visible although the photograph was made under extremely poor seeing conditions!

A larger image is at http://tiny.cc/m0ylbx. (Moving the cursor over the on-line image will produce a labeled version.)

Can you see and point out all named features listed above when observing Jupiter or showing guests this remarkable planet through your scope?

Jupiter with its Four Galilean Satellites. This view is similar to what one can usually see in a small, good quality telescope. Visible are cloud bands, limb and polar darkening, the Great Red Spot (GRS) just to the right of disk's center, Europa's shadow (dimly visible to the right of the GRS on the South Equatorial Belt), and Jupiter's oblate shape. The four satellites from left to right are Europa, Io, Ganymede and Callisto. Photo recorded 2014 February 10. *(Credit: Howard L. Cohen)*

Photo Details: Image made with only a 5-inch (127 mm), f/5.2 telescope using a 4x amplifier producing an effective focal length of 2,640 mm. Separate exposures for the bright disk (1/250 sec, ISO 2500) and fainter satellites (1/6 sec, ISO 1000) were combined to make this image. Seeing quality was unfortunately very poor although many features were still visible to the camera and eye.

During the next three months Jupiter remains the brightest celestial object in evening skies (discounting the Moon) even outshining the brightest star, Sirius, by nearly 2-1/2 times. Its current 43 arc second equatorial diameter will decrease to 34 arc seconds by mid-May as the Earth outpaces the giant planet as they orbit the Sun. Currently light must travel 38 minutes before reaching Earth but by May light will need eleven minutes more to travel to our planet.

Jupiter will then disappear from evening skies for most of the rest of the year. Catch it now if you can. ☼

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