

# OUTDOORS

## Jupiter in opposition in January

BY DEANE MORRISON

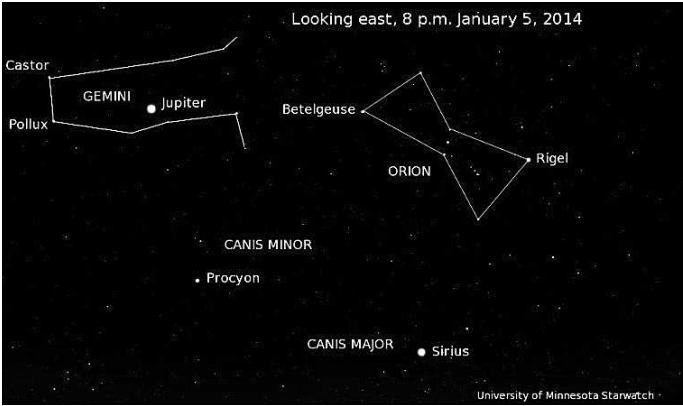
In January, Earth barely “laps” Jupiter in the orbital race before being lapped by Venus.

Earth overtakes Jupiter on the 5th, when it glides directly between the planet and the sun. At that time Jupiter is at a point called opposition, when it will be opposite the sun in the sky and visible all night. Because Jupiter is traveling slightly outward in its orbit, its closest approach to Earth comes the day before opposition. Then it will be just 390 million miles from us, and this opposition will be the closest until 2020.

Jupiter comes into opposition about every 13 months. It orbits the sun in just under 12 years; thus, in a year it moves ahead a little over one-twelfth of its orbit. But after a year Earth is right back where it was, so it must move ahead a little more than one-twelfth of its orbit—slightly over a month—to catch Jupiter again. Therefore, we’ll see the next opposition on February 6, 2015.

Because Jupiter’s oppositions are separated by 13 months, some years lack them. For instance, the planet’s last opposition was December 3, 2012; there was none in 2013.

Jupiter is in Gemini, one of the bright winter constellations now well up in the east and southeast by mid-evening. The giant planet outshines everything around it, and it also stands out due to its yellowish color. After the winter stars have risen, you can compare Jupiter’s color to that of Betelgeuse, a huge red star at Orion’s northeastern shoulder, and to the white radiance of Sirius, the brightest star in



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the night sky, just southeast of Orion.

If you’re out admiring the winter stars, take a look at Procyon, the brightest star in Canis Minor, between Gemini and Sirius. Procyon is the eighth-brightest star in the night sky, thanks largely to being only 11.5 light-years away. Sirius, just 8.6 light-years away, also ranks as one of the sun’s neighbors. These two stars, along with Betelgeuse, are sometimes called the Winter Triangle.

But back to the orbital race. Venus laps us on the 11th; at that point it will be only about 25 million miles away and an observer on Venus would see Earth at opposition, assuming they could see through the thick clouds that envelop the planet. This event marks Venus’s official passage from the evening to the morning sky, although it will be above the horizon at both sunrise and sunset for a few days around the transition. By the end of the month, Venus establishes itself as a “morning star” in the southeast.

Also in the morning sky, Mars is brightening as Earth gains on it. Look for it high in the south at dawn, just above the bright star Spica,

in Virgo. A waning moon visits Spica on the 23rd, and as it continues its drop toward the sun’s foreglow it brushes close by Saturn on the 25th.

January’s full moon arrives at 10:52 p.m. on the 15th. Algonquin Indians called this the wolf moon, for the hungry howling of the packs in the depth of winter. That night it will follow Jupiter across the sky.

Earth reaches perihelion, the closest point to the sun in its orbit, on the 4th. But at 91.4 million miles from the sun, that’s still not nearly close enough to dispel any of winter’s chill.

The University of Minnesota offers public viewings of the night sky at its Duluth and Twin Cities campuses. For more information and viewing schedules, see:

Duluth, Marshall W. Alworth Planetarium: [www.d.umn.edu/planet](http://www.d.umn.edu/planet)

Twin Cities, Minnesota Institute for Astrophysics (during fall and spring semesters): [www.astro.umn.edu/outreach/pubnight](http://www.astro.umn.edu/outreach/pubnight)

Check out the astronomy programs at the University of Minnesota’s Bell Museum ExploraDome: [www.bellmuseum.umn.edu/ForGroups/ExploraDome/index.htm](http://www.bellmuseum.umn.edu/ForGroups/ExploraDome/index.htm)



CONTRIBUTED PHOTO

Volunteers are, back row, from the left, Tom Fuller, Keith Boelk, Henry Carey, Dave Stavseth, and Tom Worth; front row, from the left, are Thomas Fuller, Mathew Fuller, Jim Rolando and Dan Zika.

## Trails End collects hides

### JOURNAL STAFF REPORT

The Trails End Chapter of the Minnesota Deer Hunters Association collected 189 hides this year through the Hides for Habitat program.

Local volunteers with the help of Cub Scout Pack 145 under the direction of CubMaster Keith Boelk salted and prepared the hides for sale to a fur buyer, reports club leaders.

Successful hunters

donated their hides by dropping them off at the chapter’s boxes placed at the Junction, the Outdoorsman and the Loon’s Nest. Money gained by the sale of the hides will be used for local habitat projects.

In the past, clover seed has been purchased and donated to Koochiching County Lands and Forests Department and the local Department of Natural Resources Area Wildlife Office. Chap-

ter members have also used some of the seed. This clover is planted on winter logging sites and trails in the area to provide high quality food for the deer late into the fall and early in the spring.

MDHA started the Hides for Habitat program in 1985. Since then, the sale of hides statewide has raised \$4.6 million. With matching funds added in, a total of \$13 million has been raised.



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10:00 - 10:45 am - Clinic Campus - Cost: \$35  
(every 8 weeks a new session starts)

To register or for more information, contact:  
Meghann Cassibo at 218-283-5420

