

JUPITER ENDS RETROGRADE ON APRIL 8

Tonight, the planet Jupiter pauses in front of the stars before resuming its usual eastward course along the Zodiac. **In other words, Jupiter is stationary on April 8, 2015.** It ends its retrograde (westward) motion in front of the stars of the constellation Cancer the Crab. Retrograde motion began on December 9, 2014.

It means that Earth passed between Jupiter and the sun earlier this year, on February 6, 2015. That event – called an **opposition of Jupiter by astronomers** – marked the middle of the best time of year to see Jupiter, since the planet was closest to us and brightest in our sky. It also means the best months for seeing Jupiter are over.

And yet you might not believe it if you gaze at Jupiter tonight. Jupiter is still incredibly bright, brighter than any star in the evening sky.

Look for Regulus to the east of Jupiter in the northern

sky. The Gemini stars, Castor and Pollux, plus the star Procyon lie to Jupiter's west. Far brighter than any star, this blazing world is even visible from a light-polluted city. You might even see the bright star Regulus to the east of Jupiter and the bright Gemini stars, Castor and Pollux, to Jupiter's west.

Blessed with a dark sky? Then look for the Beehive star cluster, with either the naked eye or binoculars, near the planet Jupiter throughout April 2015. The Beehive is a real jewel, and easy to find this month because it's so close to this brilliant planet all month long. Simply draw an imaginary line from the star Regulus through the planet Jupiter to locate the Beehive star cluster, best seen through binoculars or a low-powered telescope.

Jupiter is the fifth planet outward from the sun, while Earth is the third planet outward. **In the language of astronomers, Jupiter a superior planet. In their outward order from the sun, the superior (exterior) planets are Mars, Jupiter, Saturn, Uranus and Neptune.**

Like all the planets, Jupiter always goes eastward in its orbit, or counterclockwise as viewed from above the solar system. However, as seen from Earth, all superior planets spend a portion of each year moving westward in front of backdrop stars. The illustration above explains why.

When the Earth in its smaller and swifter orbit swings by any superior planet, that planet appears to be going backward in its orbit for several months. It's comparable to passing a car on the highway, with that car appearing to be going backward relative to distant background. Of course, you know that car isn't really going in reverse. Neither is Jupiter, during its time of retrograde motion. Starting on April 8, Jupiter will be moving eastward along the ecliptic again. But you probably won't discern much – if any – movement of Jupiter in front of the star background for the next week or two, around this time.

By the way, keep your eye on the western sky after sunset, too. The bright object here is Venus. See the little dipper-shaped object above Venus? **That's the Pleiades, or Seven Sisters. And the star Aldebaran is part of the Taurus constellation.** By about mid-April, Venus will be between these two prominent star patterns on our sky's dome!

Note also the prominent *Gegenschein* in the image, a faint brightening of the night sky opposite the Sun. Like the zodiacal light, it is **sunlight backscattered by interplanetary dust orbiting the Sun in the ecliptic plane**, with a possible concentration of particles at the L2 Earth-Sun Lagrangian point. It is distinguished from zodiacal light by its high angle of reflection of the incident sunlight on the dust particles. **Alexander von Humboldt** in 1803 gave the phenomenon its German name *Gegenschein*.

AK, from EarthSky Notes

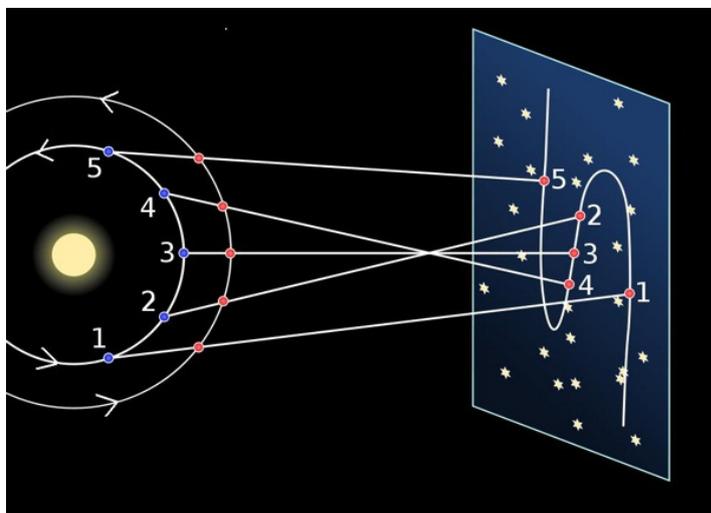


Illustration showing why a superior planet moves with a retrograde direction – apparently backwards from its usual motion, that is, westward instead of eastward – for a portion of each year. As seen from the north side of the solar system, all the planets circle the sun in a counterclockwise direction.

