Star Guide: Jupiter easy to spot in Sierra sky

By Tony Berendsen

As the sun sets, stars begin to emerge in the darkening sky of the southeastern horizon and a peculiar bright star rises. We call it a star because at first it looks like all the other stars in the night sky, but it is different from the rest if you take notice of its lack of twinkling. If you gaze at it through a binocular or telescope instead of seeing a single point of light, you will see round bright disk with up to four points of light strung out from its side; the Galilean moons.

We call this star the planet Jupiter and it is very bright in our night sky, not because of its nearness to the Earth, but because of its size, and high albedo, reflecting about half the light it receives from the sun. Jupiter is a gaseous planet so large that its volume could fit all of the other planets and asteroids and still have about 30 percent left over, it is surely “an imperial star.”

Jupiter at the horizon. Photo/Ryan Berendsen

As the largest planet, Jupiter is a gravitational giant affecting the orbits of comets, asteroids and planets in the outer solar system. Its composition is mostly hydrogen, from gaseous to liquid, or event metallic near its core. If it were about 80 times larger, it might have been a second star in our system, but small in comparison to the sun, which is about 1,000 times larger.

Jupiter isn't alone, in fact it is accompanied by 67 satellites in orbit around it ranging in size from larger than our moon to the size of a small asteroid. It's like a solar system with in our solar system, with a huge variety of environments; some that may harbor the first forms of extraterrestrial life we will discover.

To find Jupiter in the night sky walk outside away from bright lights and look to the east just after sunset. As the sky darkens it will be the first starry looking object to appear. Take a smart phone or tablet with you armed with your favorite star gazing app (SkyPortal and SkySafari are my favorites) and point to that area of the sky. Jupiter will be just above the horizon with the stars Arcturus and Spica above and below. If you watch for a while, notice how long it takes the stars to appear, and how they twinkle in comparison to the mighty planet Jupiter's steady shine.

If you have a telescope, watching the orbits of the four Galilean moons (Ganymede, Callisto, Io, and Europa) can be a lot of fun. Since the orbital plane of the moons are in line with the plane of the solar system we see them transit from time to time, and even see the shadow of the moons projected on the upper clouds of Jupiter. A great website to learn when these events will happen and to plan and plan to observe them is shallowsky.com/jupiter.

Jupiter will be with us in the night sky until September, so you have plenty of time to see the great planet. But if you have a chance take some time in the early evening over the

next few weeks to look out over the hills to watch as a peculiar bright star rises in the east.

Tony Berendsen runs Tahoe Star Tours. He may be reached at 775.232.0844 or tony@tahoestartours.com.