

# Star Guide: Tahoe, a winter cosmic theater

By Tony Berendsen

There are many wonderful places on the planet to visit where a person can step outside on a dark night to view the cosmos. Lake Tahoe is one of the best of those places. It is an earthly pedestal adorned with the stars of our near space and the immensity of the winter Milky Way shimmering above.

During the winter at Lake Tahoe the stars are bright diamonds in the sky. The winter air is crisp and clear, and because we are looking away from the center of our galaxy this time of year, the near stars shine brighter since the winter Milky Way is just a subtle whisk of light passing through the constellation Cassiopeia.



Tahoe is one of the best places to star gaze.  
Photo/Simulation Curriculum

**So what's showing in the winter cosmic theater?**

The constellation of Orion is rising in the southeast with the

blazing red star Betelgeuse at the hunters' right shoulder; it is a giant star. If it were where the sun is, we would be inside of it. Luckily its 640 light years away.

Below the belt of Orion, the three stars in a row below Betelgeuse, there is a vertical row of dimmer stars; the sword of Orion. Within the sword lays a winter star gazers' treat, a cosmic nursery. Just visible to the naked eye the glow of a nebula becomes easy to see in binoculars, and a few of the new born stars with in it at 1500 light years away.

Next, above Orion to the south is another giant red star, not as big and bright, but still a stellar gem. The star is called Aldebaran and is the brightest star in the constellation Taurus marking the eye in the mighty bull. Look to the right of the star for a V shape of stars and you have found one of the closest galactic star clusters to the Earth; the Hyades. Aim your binoculars at the V shape to see some of the hundreds of stars bound in a giant gravitational web about 150 light years away.

### **Here are some tips for winter star gazing:**

- Dress warm, layer, and wear warm shoes, gloves, and a knitted cap to cover the ears.
- Step away from lights and let your eyes adjust to the darkness for 15 to 20 minutes (bright moon nights are great, but its light overshadows the stars and the subtle winter Milky Way).
- Bring your smart phone loaded with the **SkyPortal app**, set on night mode, to help you find your way around.
- Bring binoculars if you have them. There are some amazing star clusters and nebulae to view through them.

If you are interested in a guided tour of the cosmic theater at Lake Tahoe, join us for a **snowshoe star tour at Northstar**.

We take groups out at night on a snowshoe star gazing trek on Dec. 21, 28, Jan. 14 and Feb. 11 starting at the Northstar Nordic Center and ending at the Ritz-Carlton, Lake Tahoe for telescopic viewing and some hot chocolate and cider.

I hope you get a chance to enjoy the stellar show from Lake Tahoe.

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