

### Look for the bull

**By Vernon Whetstone**

*Amateur Astronomer*

Aside from Orion, the Hunter, the second most-recognizable constellation in the winter sky is Taurus, the Bull.

It can be easily found these winter evenings by going outside about an hour to an hour and a half after local sunset and looking southeast. The sky doesn't have to be totally dark, but the darker, the better.

First, find our old friend, Orion, then look directly above it, almost overhead, for the distinctive "V" shape of the bull's face—or as some call it, look for the horns. The shape is one of the asterisms we discussed recently.

The horns are part of a very nice open star cluster called the Hyades. They are located about 153 light years from Earth.

Two things are distinct and noticeable about Taurus. First, the bright, reddish star Aldebaran. It is often called the "Eye of the Bull."

In reality Aldebaran has no real relation to the Hyades star cluster. It is located only 65 light years away, or about halfway to the cluster from Earth. They just happen to be along the same light of sight.

The second distinction for Taurus—at least right now—is the planet Jupiter is located nearby. Look up and slightly right for the very bright dot; that is the planet.

The Hyades make an excellent target for binocular observation. Aldebaran and Jupiter will almost fit in the same binocular field of view.

Another superb object for binocular observation is located nearby, the Pleiades star cluster, often called 'The Seven Sisters.'

While generally six or seven of the bright stars can be observed, there are actually more than 400 stars in the open cluster, many of which can be seen with binoculars.

The tiny cluster appears as a small cup, or dipper.

Taurus and the Pleiades have been associated since antiquity, in fact, the Pleiades are often depicted as riding on the shoulder of the bull.

Now, how about a nice observers challenge? Follow the line of the upper horn of Taurus out to the left toward the star Elnath which is the lower right corner star of Auriga, the Charioteer.

Put Elnath on the extreme left side of the field of view, and located in about the center will be the dwarf planet, Ceres. Ceres used to be called an asteroid; in fact, it was the largest of the asteroids before the designation was changed by the International Astronomical Union.

Ceres is now one of the five recognized minor planets, including—dare I say it—the demoted planet Pluto.

**SKY WATCH:** Moon at first quarter, Friday, Jan. 26. Monday, Jan. 21, the moon and Jupiter will have another very close conjunction, this one closer than the last several conjunctions. The two

will be less than one-half degree apart. One-half degree is about the same width as the moon itself. Fabulous sight in binoculars, go outside and take a peek about an hour and a half after local sunset.

NEXT WEEK: The Sun, moon, planets, and the ecliptic, and more astronomical blathering.