

### It surely can't be winter soon

**By Vernon Whetstone**

*Amateur Astronomer*

The calendar says that winter is here. Friday, Dec. 21, at 4:12 p.m. MST, the Sun will cross the celestial equator heading south ushering in the winter season for the northern hemisphere.

Well, the calendar may say it, but the recent daily temperatures sure don't say that winter is here.

Last week there were daily highs into the upper 60s and the lower 70s; tell me how that is winter?

I recall the day we arrived in Nebraska in our move from Missouri some 30-plus years ago. The temperature was 76 degrees and stayed that way for three days.

Now, I know these warm days will not hang around for long, the daily highs and the overnight lows will soon return to their normal routine and we will be assured by the thermometer that winter is upon us.

How else can we tell it is winter if the thermometer is not behaving as it should.

Well, glad you asked. We can look at the eastern sky in the early evening for our assurance that winter is upon us. There are several stars and constellations that are reliable in their pronouncement that winter is here.

Since local sunset is now at about 4:20 p.m., and it is dark about a half hour later any effort at star gazing does not have to wait for very long. However, just to be sure it is good and dark we should probably wait for about an hour after sunset.

First over the eastern horizon is the tiny star cluster Pleiades, the Seven Sisters. It is a very nice cluster that can be seen without any optical assistance. It is a small group of stars that look like a very small dipper.

It looks even better through binoculars.

The cluster has been known since ancient times and has figured prominently in the history of many cultures, they are even mentioned in the Bible.

After another hour, the zodiacal constellation Taurus, the Bull can be seen in its entirety. We have looked at Taurus many times before, and right now there is an extra added attraction for our viewing pleasure, the Planet Jupiter is right between the horns of the bull.

Last of all by 8:00 pm the most significant sign of winter is in full presentation. Orion, the Hunter—the King of Winter is above the horizon.

Orion is easily found. He has an hour-glass shape and at rising he appears to be laying down. The three stars of his belt are vertical from the horizon, the two bright stars of his shoulders are to the left and the two bright stars of his knees are to the right.

And of course, the three stars that appear to be his sword are just left of the belt. The middle star of the sword is no star at all, it is the fabulous Orion Nebula which in a telescope is an astoundingly beautiful sight.

SKY WATCH: Third-quarter moon tomorrow, Dec. 6. Jupiter is at opposition this week, it is opposite the Sun in the sky which means it rises at sunset and is visible all night until sunrise. At present it is near the bright, reddish, Aldebaran, the eye of Taurus. In the morning sky the planets Saturn and Venus are still near each other, although they are drawing apart.

The tiny planet Mercury has joined them down to the lower left. The three are almost in a straight line running down to the left from Saturn.

The bright star Spica extends the line up and to the right. On the morning of Dec. 9, a skinny moon joins Spica, the next morning it is near Saturn, and on Tuesday, Dec. 11, it is between Venus and Mercury. A sight worth getting up a little earlier for.