

### The seasons are a-changing

**By Vernon Whetstone**

*Amateur Astronomer*

I certainly hope some of you had better success with viewing the Perseid Meteor shower than I did. On both of the peak nights—Monday, Aug. 12, and Tuesday, Aug. 13—it was clouded out here in southwest Nebraska.

But, as they say, that is an occupational hazard for astronomers.

The next meteor shower is the Draconids with a peak on the evening of Oct. 7 into the morning of Oct. 8. The peak/hourly rate is only about 20 per hour but it has been known to produce many more than that.

The radiant is in the constellation Draco which will be high overhead shortly after local sunset so observing can begin early. There won't be any moonlight to get in the way as the just-past-new moon will set two hours after local sunset.

More about that as the time draws closer.

Have you noticed, the days are getting shorter? When we leave the house for our morning walk at 5:30 a.m., it is a lot darker than it used to be. We were able to watch sunrise just as we started our walk, but now it is not rising until almost a half-hour after we start.

From the first day of summer until now we have lost about 1:29. From the first day of summer until the first day of autumn we will have lost 2:50. The Sun is also moving south along the horizon.

In the west we have lost the spring constellation, Leo, the Lion. Only his tail is above the horizon at sunset. The stars of summer—the Summer Triangle—are overhead at sunset and Scorpius and Sagittarius are high in the south.

If you have been out observing Mars and Jupiter in the early morning the stars of winter, Orion, Taurus, and Gemini are above the horizon at sunrise.

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The blogs and astronomy web pages have been positively agog the past week with the appearance of a nova in the tiny constellation Delphinus.

A nova is a star that suddenly brightens as the result of an explosion in its outer layers.

That is as opposed to a supernova where the star itself explodes.

Whatever the case, it has reached the level of naked-eye visibility, or at least in a pair of binoculars.

It is located just above the small, diamond-shaped constellation Delphinus. To find it, look just left of the star Altair—the bottom star in the Summer Triangle—for the constellation. The star that went nova is above it.

Another very small constellation—Sagitta, the Arrow—located above Altair points almost right to it. All of them are located almost directly overhead. The best time to look is at least an hour and a half after local sunset.

SKY WATCH: Full moon Tuesday, Aug. 20. Planet, planet, who's got the planets? There are two visible after sunset in the west. Venus is very bright and you can't miss it. Just to its left the length of three clenched fists held at arm's length is Saturn. In the early morning about an hour before sunrise you can find bright Jupiter. About 10 degrees below is dimmer Mars. During the next few days watch Mars as it creeps into the M44 star cluster on Sept. 8 and 9.

NEXT WEEK: More astronomical blathering.