

View the high and low riders

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We have had winter now for almost a month and the physical traits of the season are well in view. The cold weather, the snow (if you have some), and the runny noses which seem to abound.

The winter sky is also well in view. The giant constellation Orion, the Hunter, often referred to as the “King of Winter,” is in full view in the early evening sky in the east by 7 p.m. local time.

The well-recognized hourglass shape, the three stars for a belt and the three apparently stars hanging from the belt.

But an examination of the middle “star” of the sword reveals—even with binoculars—that it is something else and not really a star. It is the famous and well-observed Orion Nebula.

In fact the upper supposed star is also a nebular object while the lower star is in fact a group of several stars.

As fascinating as the Orion Nebula is, that is not really what I wanted to discuss today. It is another winter phenomenon that perhaps is not even noticed by the average person.

During the winter months the Sun rides very low during its day-long trip across the sky.

The reason, as we have discussed before, is during the winter months the Sun is over its southern-most declination—the Tropic of Capricorn—after the winter solstice.

Something that may have gone unnoticed is that during these same months that the Sun is riding high, the moon, in its orbit, is riding very high across the sky.

We will have an opportunity to observe this event in the coming weeks. The moon will be new on Friday, Jan. 11. By now you should know that a “new moon” means, “no moon” in the sky.

While we can see the Sun during the day, and notice how high it is in relation to the horizon, it is a little more difficult with the moon.

For one thing, the best time to see how high the moon is in relation to the horizon is at full moon on Sunday, Jan. 27, at midnight looking south.

During the summer months, the effect is reversed. The Sun rides high across the sky and the moon rides low.

Why? Well, I could give you a long, complicated answer that probably neither one of us would really understand, or I could just say, it all has to do with that pesky 23.5 degree tilt in Earth's axis and orbital mechanics.

SKY WATCH: New moon, Friday, Jan. 11. If you would like to observe the two dim outer planets Uranus and Neptune, this is a good time. The moon will provide some help as a locator.

First, on Monday evening, Jan. 14, grab your binoculars and be outside in your favorite dark-sky place at about two hours after local sunset. Look southwest for a slender crescent moon. Almost directly below the moon, about seven degrees (which is a little more than the

width of a binocular field of view) will be the small, bluish dot of Neptune.

Next, on Wednesday evening, Jan. 16, at about the same time and looking in the same direction, use the slightly larger crescent moon to locate the slightly greenish planet of Uranus. It will be in the same field of binocular field of view just to the lower left of the moon.

If you haven't had the opportunity to view the two gas giant planets, now is a good time to add them to your list. Personally, I have seen eight planets. The only one I haven't seen is Pluto.