Applegater Winter 2015 7

THE STARRY SIDE See into the future

BY GREELEY WELLS

sky is a real treat. During the first half of the night, the sky is named after the season we're in. So in winter, we call the evening's configuration of stars and planets the "winter sky." Generally, we then go to bed. But if we get up before dawn, we have a completely different view of the sky, which is actually *next* season's evening sky. So even though it's

winter as you read this, you can see the "spring sky" if you get up early enough (or stay up late).

How does this work? During the night, the visible portion of the sky shifts as the earth spins on its axis. So if I look up at 10 pm in winter, I am seeing the constellations and planets in their "winter sky" configuration. If I go outside again at 4 am, they have shifted about 90 degrees, to their "spring sky" configuration. So at 4 am, I'm glimpsing the future.

And that is true all year long. Each night we would see two seasons' skies, were we to watch the whole show. As I write this, it is fall; by dawn tomorrow the next season-winter-will show up.

I often get up early to meditate, and I look out to see this "season's premiere." How cool, how simple, how symmetrical and predictable are these sky mechanics. So congratulations: you can see into the future!

The winter sky is one

The celestial symmetry of our night clear (except in inclement weather). The full moons are high and bright, the Milky Way obvious, and the skies filled with bright, clear constellations. Yes, you have to dress up against the cold, but it's so worth it.

Orion, almost everyone's favorite, is up most of the night, very high and thrilling. His train of companions stretches out after him, including Canus

Castor

Pollux

Procyon

Jupiter

Major with the brightest star in our heavens, Sirius. Then there's Canus

Minor above Sirius, a bright star with a companion. Above Orion are the Gemini twins. Ahead of him, you can find the clear V of Taurus the bull, with bright Aldebaran, and still farther out, the seven sisters, or Pleiades. Such a clear consistent gang of beauty working their way across the night sky through the season!

Aldebaran 9

Rigel

Betelgeuse

"Orion's Belt'

South to Southwest, Evening Capella

"Winter Circle"



Greeley Wells

Winter Triangle that includes most of these stars. By February Leo the Lion, with Jupiter nearby, has risen to the top of the sky. Parallel to Leo is the Big Dipper, which also reaches the sky's zenith as the Gemini twins set in the west

Circle and

with the winter constellations. Here comes spring!

Other events of note

For you morning risers looking into spring, the dance of the planets continues. Bright Venus is now slowly sinking till it disappears in June. The nextbrightest planet, Jupiter, is rising fast with the other stars, while Mars rises slowly. Last is Mercury, hardly visible because it's so small, rising and falling in and out of our vision and low on the horizon. Mercury is never far from the sun and moves fast around it.

Winter solstice is on December 22.

Geminid Meteors can be seen pretty well this year with a very young moon from December 14 to the 23rd. Instead of a peak of meteors, which is most common, they plateau and show when the constellation Gemini is highest in the sky, from 2 am till before dawn. There may be 50 to 130 meteors per hour!

Wishing you clear, dark night skies and bright stars. Greeley Wells greeley@greeley.me

EarthSky.org of my favorites. It is cold and

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"Winter Triangle"

Sirius

