Applegater Spring 2016

THE STARRY SIDE Imperceptible movement

BY GREELEY WELLS

Let me put you in your car on a freeway, going as fast as the speed limit. That book on the seat next to you is just there, still and quiet, even though you both are flying though space. Now look out the window. Things that are close fly by your fast-moving car. But the farther away they are, the slower they go by, like that mountain on the horizon. Look at the way the sky of stars and even our moon stay in the same place for long periods of time while you're driving at night! It's a bit of a weird effect.

How does it work? Those stars seem to just hang there because they are unbelievably far away from earth. They really are moving relative to our spinning

planet: they slowly work their way from east to west because we are spinning west to east. But from our point of view, most of the time they don't appear to be moving at all. If you notice a bright star or the moon moving, it's because there's something stationary right next to it (like a mountain or horizon line) to compare it to. So things are moving, just really slowly.

In a way, this conundrum is **comforting.** The world we are a part of and living on—our home itself—is also speeding through space, yet we hardly know it and never feel it. Even though the stars may be moving at fantastic speeds, we can't detect that movement

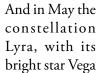
Illustration: Guy Ottewell's Astronomical Calendar 2016.



without terrific scientific effort. Even And in May the as we are moving at thousands of miles per hour around the sun, and all of us in the whole solar system are tracking at tremendous speed through our Milky Way galaxy, all these movements are undetectable to us. All seems quite stable and predictable here on earth. It's a seemingly safe, knowable, gentle and beautiful cosmos we live in. There are so many other more "important things" to worry about. But let's appreciate the luxury of having this curious and interesting question to ponder. After all, like the movement of our galaxy, we're slowly getting older and rarely notice that, either!

> What a great winter, snow and all! And Mount Ashland opened again. Now it begins to warm up, and those winter constellations have moved into the west. Orion stands on the horizon in April and sinks into the northwest as the season matures. With Orion sinks the whole Milky Way: notice it all along the northern, western and southern horizons. In April the Milky Way rises all along the opposite southern, eastern and northern horizons. We live at the edge of our home, the Milky Way. This season we're looking out overhead away from it. It's below us and around us, but not actually in our clear spring night view.

> Leo and the Big Dipper, parallel to it, have risen high in the east in March. They will be overhead in April and westerly in May.



of the summer triangle, will be high in the east heralding summer treats.

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With the rising of the Big Dipper (follow the arch of the handle) is the very bright Arcturus in the constellation Boötes. To its east is that crown shape, Corona Borealis. In April, a little farther east, rises Hercules, the hourglass shape. **Other events of note**

March 20 is the vernal equinox and the official start of spring. Days and nights are about equal for a week or so, and the sun rises due east and sets due west. I've made a mark on my rooftop star-observation deck railing to show it. I'm working on marking the other solar events. I missed the winter solstice because of endless overcast, but some day I'll get it!

Many of the planets have been easy to see if you're an early morning, beforedawn riser. Venus is the main treat, being by far the brightest. A beautiful little crescent moon visits very close to Venus at dawn on April 6.

Second only to Venus is Jupiter, who's been rising earlier and earlier with the constellation Leo. Jupiter has been living in the constellation Leo for a year or so, and is now up just about all night. Jupiter's solar year is 12 of ours, so it spends a year in each of the zodiac constellations—almost imperceptible movement.

Wishing you clear, dark night skies and bright stars.

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