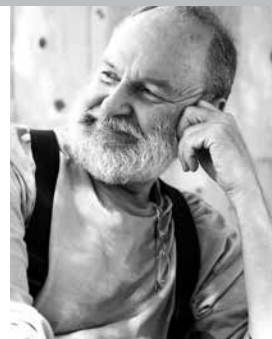


## THE STARRY SIDE

# The North Star, the still star

BY GREELEY WELLS



Greeley Wells

If stargazing is new to you and you want to learn one interesting thing, find Polaris, the North Star. It's the only star in the whole sky that stays in the exact same location. There are several ways to find it:

1. Look in the direction the sun rises (that's east) and turn to your left—that's north. Facing north, look up approximately 45 degrees—about halfway between the horizon and straight overhead—and you'll see a modest star, measured as only the fiftieth brightest star, but first in importance because every other star moves around it while it *stays still!*

At my house, the North Star is always just to the right of a tall cedar tree, about

three quarters of the way up the tree. I recommend you find a landmark like my tree and orient the star in relation to it to create your own personal mark.

2. The most common technique is to use the Big Dipper (officially called Ursa Major, the Big Bear), which is always in the north going around and around that North Star. The two stars at the bottom of the dipper, away from the handle, point directly at the North Star.

3. You can also use Cassiopeia. She's a queen but looks like a W or M depending on her orientation, and she lives on the opposite side of the North Star from the Big Dipper. One side of the W is a wider

V than the other. Imagine two evenly spaced lines within that wider V, dividing the space into three pieces of pie. Follow the outside line (away from the center) of those two lines you just imagined, and it will point right to Polaris.

4. The Little Dipper (Ursa Minor, the Little Bear) is a third constellation in this story. The end star of its handle is the North Star. The handles of the two dippers (or the tails of the two bears) are pointing opposite to each other. With this information you can stay on track walking or navigating at night using the position of the North Star. If it's on your right, you're walking west; if on your left, you are walking east; if behind

you, guess what, you're walking south, etc.

These are important first steps in understanding the movement of the night sky. All other stars and constellations are only in the same place once a year. The North Star (near your personal mark) and these circumpolar constellations rotating counterclockwise around and close to it are almost always completely visible because they stay high in the sky all year long. If you find this group in the north, they will always be there for you in any season.

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Illustration from stellarium.org.

### Greeley's Sky Calendar

**Venus** is the brightest thing in the evening all this summer. She's at her highest and stays up longest in August.

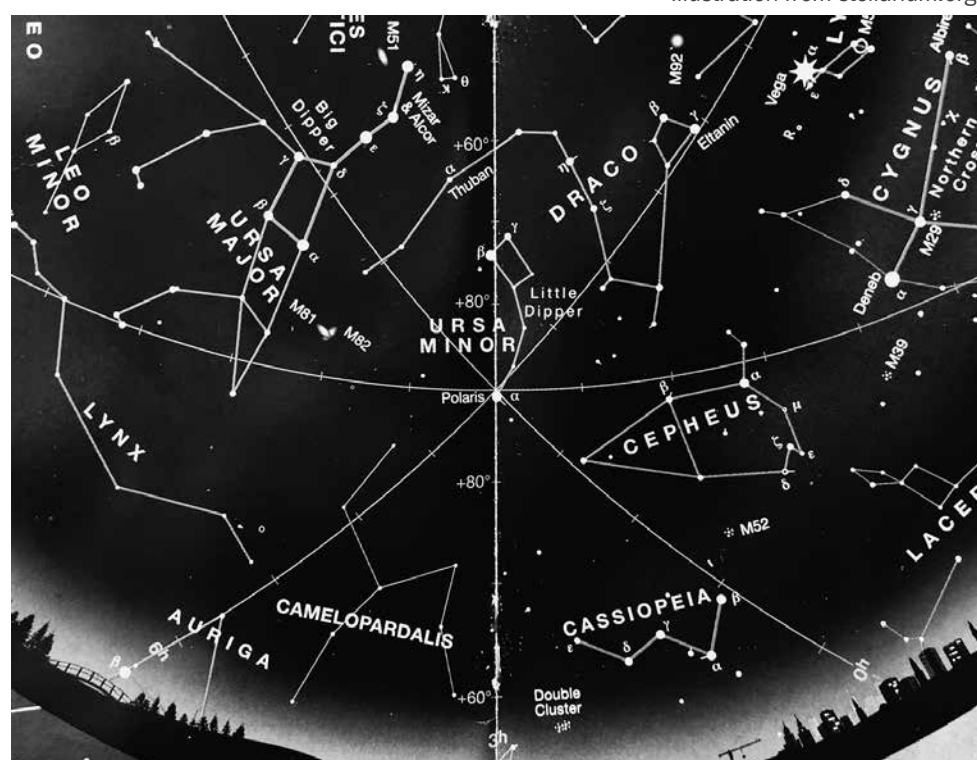
**Jupiter** works his way down and west into the evening throughout June, July, and August and is almost as bright as Venus.

**Mars** and the earth are at their closest on July 27, when Mars will be at its brightest since 2003. It had been 6,000 years since Mars was that close to us, and this year it will *almost* match that record-breaking brightness.

**Mercury**, in the sun in June, in the dusk in July, and in the dawn in August, is hard to find, as always.

**Saturn** is up all night in June and moves into dusk in July and August. It's at its apex in June.

**The Perseid meteor shower**, the best of the year, peaks on August 12-13. A small crescent moon will set early in the evening. It's always best after midnight, when the earth has turned its dark side into its direction of motion—that's the leading side, facing into the wind, as it were, creating a more vivid show, the way snow is more impressive coming at you through the front window of a car than the back window!





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