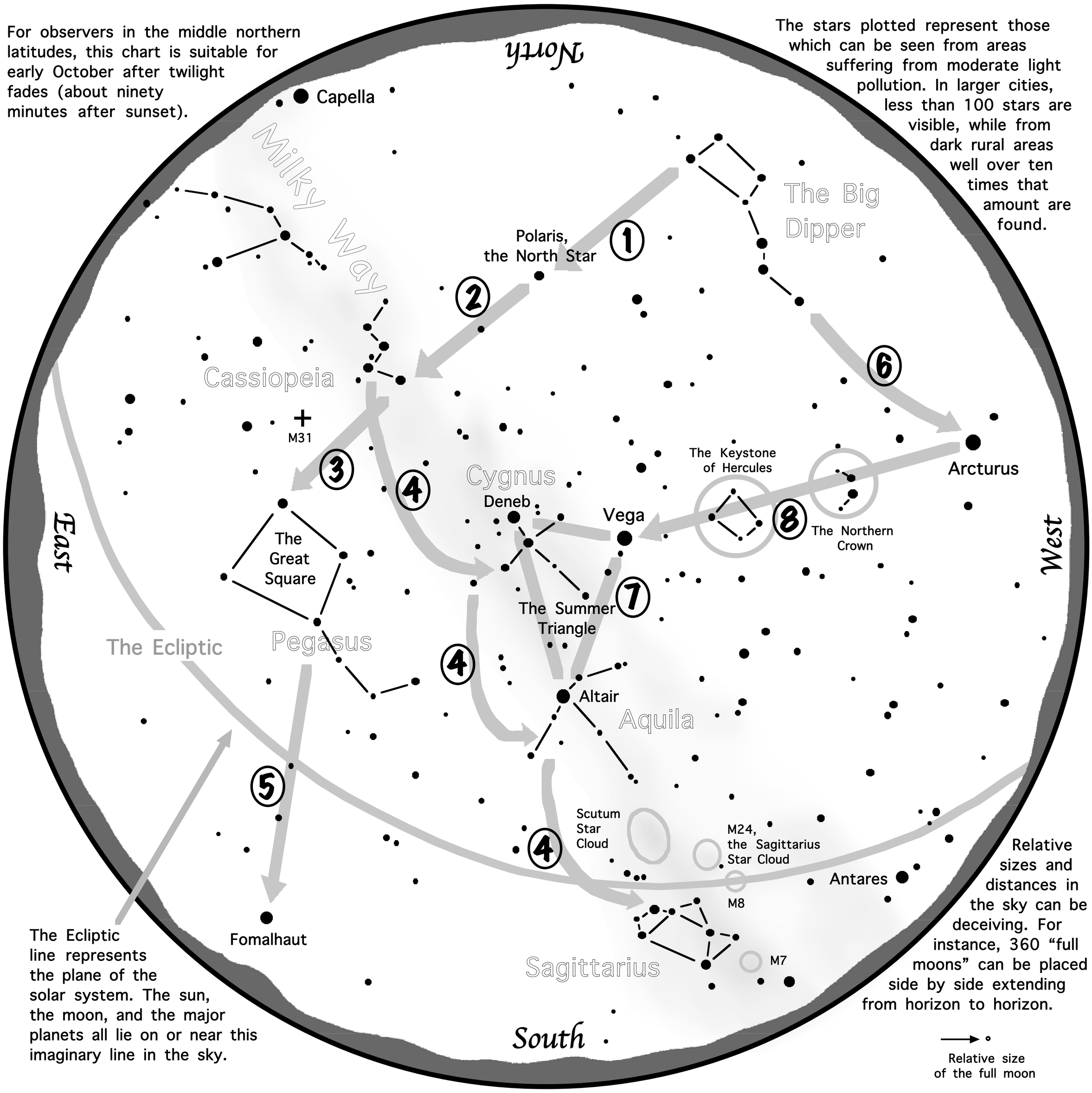
Navigating the Autumn Night Sky

For observers in the middle northern latitudes, this chart is suitable for early October after twilight fades (about ninety minutes after sunset).

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark rural areas well over ten times that amount are found.



The Ecliptic line represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 “full moons” can be placed side by side extending from horizon to horizon.

Relative size of the full moon

Navigating the fall night sky isn’t difficult.
Simply start with what you know or with what you can easily find.

At this time of year in the early evening, the Big Dipper lies in the northwest.

1. Extend an imaginary line directly north from the two stars at the tip of the Dipper’s bowl. It passes by Polaris, the North Star.
2. Follow that same line to the westernmost star of the “W” of the constellation Cassiopeia lying in the Milky Way.
3. Continue the line farther until it bumps into the star on upper left corner of the Great Square of Pegasus.
4. From Cassiopeia, travel southwards along the softly glowing band of the Milky Way past Cygnus (aka the Northern Cross), past Altair, and end at the tea pot shaped Sagittarius. Look for the bright regions of the Scutum and Sagittarius Star Clouds.
5. Use the two westernmost stars of the Great Square to form a line leading south. It lands on Fomalhaut, easily the brightest star in this part of the sky.
6. Follow the arc of the Big Dipper’s handle. It intersects Arcturus, the brightest star in the fall night sky.
7. The bright stars Deneb in Cygnus, Altair in Aquila, and Vega shining nearly overhead form the “Summer Triangle.”
8. Low in the west sinks Arcturus. Draw a line from it to Vega, the brightest member of the “Summer Triangle” shining nearly overhead. One third of the way sits “The Northern Crown.” Two thirds of the way to Vega hides the “Keystone of Hercules.” A dark sky is needed to see these two interesting but dim stellar configurations.

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