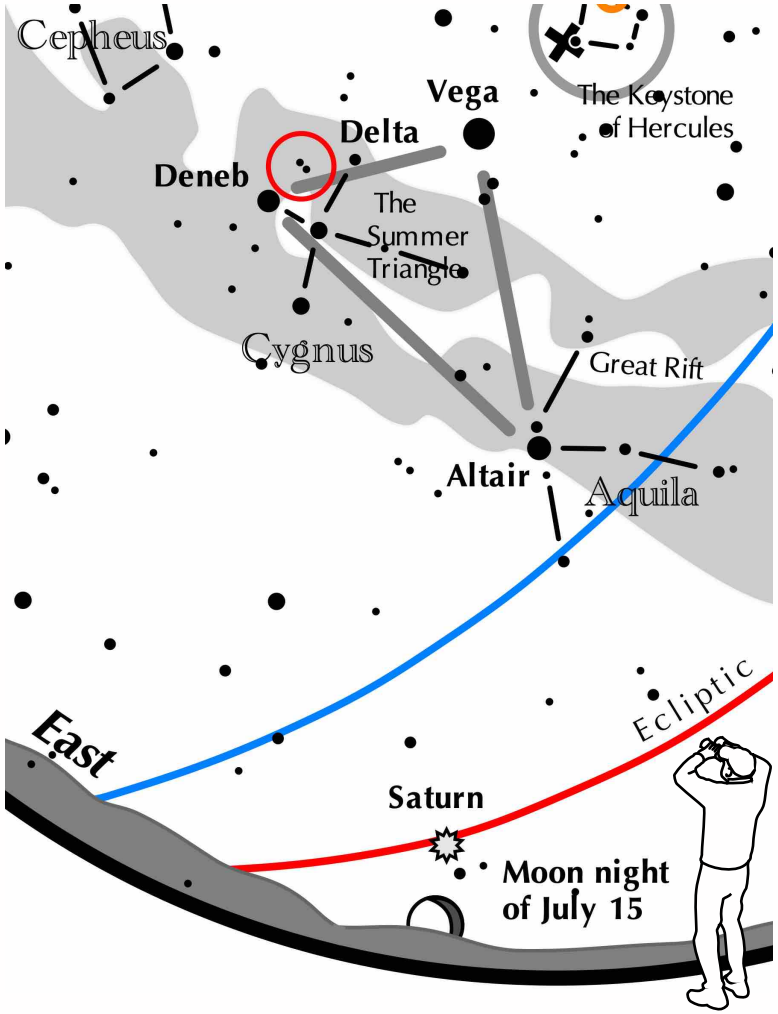
Just in time for July 4th: The Patriotic Star

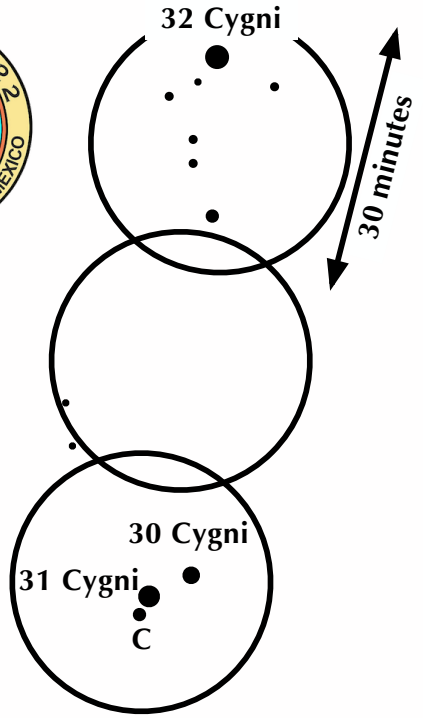
• Around this time of year, Cygnus rises high in the northeast.
• Draw an imaginary line from Deneb, its brightest star to Delta, the western star on the constellation's cross bar.
• About half way between Deneb and Delta lies an intriguing stellar smear.
• Binoculars reveal two groups of stars.



This Fourth of July, aim higher than the exploding fireworks to the "Patriotic Star." Can you see the red, white and blue?

Just in time for Independence Day is the sky's own "Patriotic Star." Actually, it is grouping of three stars, each being the brightest component of its own multiple system.

• The brightest partner, twinkling at mag. 3.8, is 31 Cygni (aka Omicron 1 Cygni).
• Six minutes to its northwest glows the 4.9 mag. 30 Cygni, while the dimmest member, "C," has a magnitude of 7.0.



Aim your scope at these three stars to make your own color estimation. You may agree with some observers that their advertised red, white, and blue colors may be a bit of a stretch. Slightly de-focus the trio to give small, round blurs instead of crisp points. Now can you distinguis color differences among these three very different stars?

Orangish-red 31 Cygni is classified as a super giant with a surface temperature of approximately 4000ºF, about 2000ºF cooler than our own sun. Incredibly, if placed within our own solar system, its radius bloats the star's surface beyond Mars! 30 Cygni is hotter at 8700ºF, giving it a white appearance. Finally, "C" fires the hottest, possessing a temperature over 11000ºF. If you look closely, it appears bluish.

The northern portion consists of 3.9 magnitude 32 Cygni, also called Omicron-2, set against five 7th and 8th magnitufe field stars. Altogether they form a "micro-cygnus." The pretty flock of Cygnets points one degree south to the stellar family headed by the Patriotic Star, 31 Cygni.