

Gemini's Treasures. A late evening in March is a good time to visit Gemini, "The Twins", high in the southern sky. Castor and Pollux are the twin stars at the northeastern end of Gemini. Castor, mag 1.6, our neighbor and only 50 l-y away, is often marked as a double, but it is a sextuplet! It'll take a 4-inch scope to see Castor A and B separately; they are only 5 arcsec apart. Castor C, mag 9, is 72 arcsec to the southeast of A and B; to see its orangey color requires a 10" scope. A, B and C are each extremely close doubles. Don't try to "split" them, it won't work, they are way too close.

Twin Pollux, mag 1.2, is about 35 l-y away or 10 parsecs and just the right distance for the "absolute" magnitude to equal the "apparent". Compared to our Sun its luminosity is 35x brighter and diameter is 10x the Sun's (volume thus 1000x).

Epsilon Gem is a super giant G star, mag 3 and absolute mag is -4.6. Its distance from us is 1,100 l-y or 300 parsecs and it has a luminosity nearly 6,000x the Sun's.

U-Gem is an interesting variable star, nicknamed a "miniature nova" or dwarf nova. The star is only mag 14, but every few months its brightness increases 100-fold in just one or two days (to mag 9 thus). It is fascinating to watch this 'light-up', ideal for a visual observation. Give it a try, you'll find "U" at 07551+2200 (recollect: RA 07 h 55' 06" and north 22 degrees 00'). Sometimes U-Geminorum stays bright for two weeks and on other occasions for only one week. These 'light-ups' occur irregularly with an average spacing of three months (between 2 and 7).

This star is an extremely close double, less than a million miles apart and the doubles orbit each other every 4.2 hr, a break-neck speed. One is a white neutron of 1.2 Solar mass and the other member of the double is a red dwarf of 0.4 Solar mass. I've picked this interesting dwarf-nova as one of the Starsplitters' study-objects for the coming years. As often as we can we'll take pictures and hope that we'll get lucky once or twice. If so, we'll devote a column to it and highlight some explanations for its rare behavior. It seems to be something like a micro type IA super-nova.

M35 is a nice and near OC (open cluster), easily detectable with small binoculars. With an 8" scope the OC can be resolved into its stars. Just SW of it (1/3 degree) is NGC 2158, a small distant OC, 1600 l-y away near the edge of our MW galaxy

NGC 2371 and 2 are the Gemini Nebulae, actually one nebula with two lobes. You locate it at 5 degrees W of the midpoint Castor-Pollux.

NGC 2392, the "Eskimo Nebula" at 9 degrees due south of the Gemini Neb, is a very young nebula (less than 2000 years?). With an 8" scope you might see why it is called the Eskimo nebula but it will take some effort. A long exposure photo reveals a face-like structure in a parka-like cloud.

Finally try to observe (and photograph) nebula Abel 21, the Medusa Nebula, mag 11, at 07291+1315, an interesting "old" nebula. It is likely a supernova from long ago, now 10 arcmin in diameter and oval in shape. Surface brightness is low and most of its light is in the near IR, nice object for CCD imaging with a 10" scope.

Till next time and CLEAR DARK SKIES, please.

GW