Orion's Mighty Stellar Retinue

In the southeastern quarter of the evening sky lies a grand assemblage of celestial superstars. | **By Fred Schaaf**

IMAGINE IF YOU COULD COLLECT THE brightest stars of spring, summer, and fall into a single season, cram them into one sector of the sky, and then double or even quadruple the brilliance of some of them. That would be fantastic!

Amazingly, you don't have to use your imagination to visualize such a grand assemblage of celestial luminaries, because it already exists. I refer to the grouping of winter constellations that surrounds and includes Orion, the Hunter.

Of course, no one has robbed and emptied the spring, summer, and fall skies to create this mighty display. My point is that Orion and his neighbors contain approximately as many 1st-magnitude and brighter stars as all the other seasons combined. And some of these winter stars shine ½ to 1½ magnitudes brighter than their other-season rivals.

Before checking out this comparison more closely, let's make a quick survey of the great Orion constellation group. We can do this first indoors with the help of the foldout sky map on the opposite page, and then outside in direct and live glory.

Turn our map to put the yellow "SE" (southeast) label at the bottom edge. Sparkling low here is Sirius, the brightest star of any season. Sirius and its now-rising constellation, Canis Major, are just the bright base of a megastructure of winter constellations now towering most of the way up to the zenith in the narrow wedge of sky from southeast to just north of east. Its worthy center is Orion.

Orion, with his three famous Belt stars of similar brightness arranged in a row, is balanced by a pair of even brighter stars — the fiery orange of Betelgeuse and bluish white of Rigel.

Pausing to study the color of Betelgeuse leads us to discern the similar but lighter hue of Aldebaran in Taurus, the Bull. And Aldebaran's constellation connects to the now-tilted pentagon of Auriga, crowned with Rigel-bright but yellowish Capella. To the lower left of Auriga recline the side-by-side figures of Gemini, representing the twin brothers of Greek mythology — Pollux and Castor — each of whom bears on his head a bright star named for him. Last of all, the Little Dog, Canis Minor, is dominated by the heavens' eighth-brightest star, Procyon.

Clustered around Orion (below center) is the greatest concentration of 1st-magnitude and brighter stars of the four seasons. Compare this view with the facing foldout sky map. The brightest object here is ruddy Mars, which was in Taurus when Akira Fujii photographed the area in the fall of 1990.

Sirius is tremendously brighter than the "Sirius of Summer," Vega. Spring's yellow-orange Arcturus only very slightly outshines yellow Capella. The whitish superluminous Rigel has much greater apparent brightness than the white superluminous star of summer, Deneb. The red supergiant Betelgeuse handily outshines its summer counterpart, Antares. Procyon is significantly brighter than summer's Altair, a star that actually has quite a few things in common with it (as I'll discuss next month). Aldebaran, in the zodiac, is a bit brighter than spring's zodiacal Spica and has a more distinctive color. And Pollux is the tiniest bit brighter than autumn's lone 1st-magnitude star, Fomalhaut.

We still have one 1st-magnitude star left from the other seasons, spring's Regulus, and no 1st-magnitude star of winter to match it. Consider, however, the next two brightest winter stars (only slightly dimmer than Regulus). They are Adhara, a member of the Orion complex just rising in the southeast on our map, and Castor. Together they more than make up the lack.