

# Stars over Sisters

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There was once a giant constellation that dominated the southern celestial sphere by area. It was known as Argo Navis and represented the ship used by “Jason and the Argonauts” of Greek mythology to search for the highly prized Golden Fleece, a symbol of authority and kingship.

In 1752 French astronomer Nicolas Louis de Lacaille sub-divided Argo Navis into three adjacent constellations now known as Carina, Puppis and Vela. Though these new star groupings are now separate constellations unto themselves, they still symbolize parts of the original ship: Carina the Keel, Puppis the Stern, and Vela the Sails.

Carina and Vela lie too far south in the sky to be seen from our latitude. But the northern portion of Puppis can be viewed from Central Oregon. That’s a good thing because the finest deep sky objects in the entire constellation are found there. This is because the Milky Way runs through a large section of Puppis.

The most impressive of

these objects are M46 and M47, two open star clusters located about 13 degrees due east of Sirius, the brightest star in the night sky.

M46 was discovered by Charles Messier in 1771, while he was searching for comets. The cluster became the 46th entry in Messier’s catalog of non-stellar objects.

Danish astronomer John Louis Emil Dreyer described this collection of about 500 stars as “very bright, very rich, very large.” It is estimated to be approximately 300-million years old and lies at a distance of about 5,500 light-years.

An interesting feature of this cluster is that planetary nebula NGC 2438 appears to lie near its northern fringe. Astronomers believe, however, the two objects are unrelated since they don’t share the same radial velocity through space.

Positioned just 1.5 degrees to the west of M46 is the younger and nearer cluster M47, also cataloged by Messier. But Messier made a mistake by incorrectly recording the celestial coordinates of this object as referenced from the star 2 Puppis — there is no cluster at that location. The

mystery was resolved in 1959 when Canadian astronomer T. F. Morris realized that by changing the signs of Messier’s coordinates, it matched the location of star cluster NGC 2422.

M47 contains only about 50 stars, but many of them are brighter than those in M46. The stellar population of M47 is comparable to the famous Pleiades cluster in Taurus.

February is an excellent month to locate the Winter Triangle. Three of the brighter stars the winter sky has to offer mark the vertices of this nearly equilateral triangle. The western-most star in the triangle is Betelgeuse, the red giant star in Orion. Approximately 27 degrees to the east is Procyon, a whitish-colored star located in Canis Minor (the Lesser Dog) about 11.5 light-years from the earth. The third vertex, lying farther to the south, is brilliant Sirius in the constellation of Canis Major (the Greater Dog). None of the fixed stars shine brighter than this luminary. It lies at a distance of 8.6 light-years.

An impressive lineup of planets will occur during the first 20 days of February. All five of the visible planets

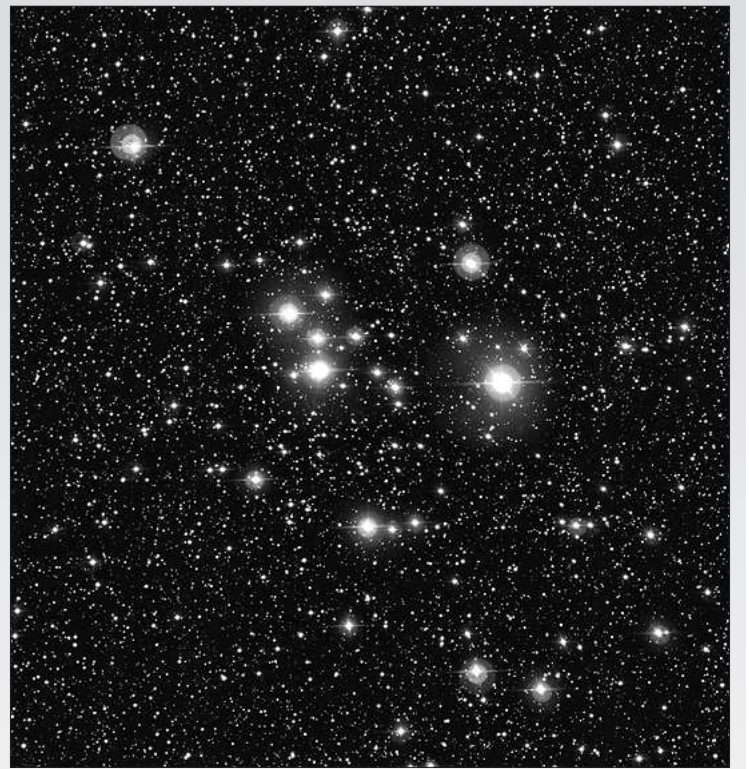


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M47 is a nearby star cluster in the constellation of Puppis.

will appear simultaneously, forming a nearly straight line above the horizon in the pre-dawn sky.

Jupiter is the planet highest in the sky and farthest to the west, followed by Mars, Saturn, Venus and Mercury, hovering just above the southeastern horizon. On February 1 a waning moon, just one day past third quarter, will lie near Mars; by February 6 a very thin crescent moon will appear just above the planet Mercury, making for a most

picturesque sight.

The last time all five visible planets appeared in the same sky together was over 10 years ago.

A fading moon illuminates the early morning sky during the first week of the month, then goes dark on February 8. Earth’s only natural satellite slowly brightens again, reaching first quarter by February 14. From here the lunar phase is said to be in a waxing gibbous state until February 22 when the Full Snow Moon arrives.

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