

February Sky Report: A Pirate's Tale, Part 1

By Jim Feiste

Imagine you are the navigator on an ancient pirate ship, commanded by an abusive captain who requires her helpless crew to constantly clean the ship's equipment. You carefully approach her and offer the following observation: "**Captain, all-the rigging seems properly polished (with castor oil and beetle-juice).**" You have just accomplished 2 things: you've angered the captain; and you've just named 7 of the brightest stars in the sky!

During each season of this year we will follow the adventures of this sailing ship to learn the names of all the first magnitude stars of the northern hemisphere. This spring, an unhappy crew member will plan a mutiny, so stay tuned! But this month our adventure begins in the Winter Hexagon.

February's Stars and Deep Sky Objects

The 21 brightest stars in the sky are called first magnitude stars. These are stars with magnitudes less (brighter) than 1.5. Seven of these stars appear every winter in *The Winter Hexagon* asterism (informal constellation). You can remember their names with the mnemonic: "**CAPTain, AL-DE RIGging Seems PROperly POLished (with CASTOR Oil and BEetle-juice).**" The stars, in order around the hexagon, are:

- **Capella** (*Auriga*): magnitude 0.1, distance 42 ly
- **Aldebaran** (*Taurus*): magnitude 0.9, distance 65 ly
- **Rigel** (*Orion's* knee): magnitude 0.2, distance 860 ly
- **Sirius** (*Canis Major*): magnitude -1.5, distance 9 ly
- **Procyon** (*Canis Minor*): magnitude 0.3, distance 11 ly
- **Pollux** (*Gemini*): magnitude 1.2, distance 34 ly
- **(Castor** (*Pollux's* "twin"): mag 1.6 (2nd mag), dist 51 ly)
- **Betelgeuse** (*Orion's* shoulder, near the center of the hexagon): magnitude 0.6, distance 500 ly

I first learned this as a child from the book How to Read the Night Sky, by W.S. Kals. (Thanks to my mom for finding it at the library when I was young, and to Stan for rediscovering it for me online!)

Beetlejuice and **Rigel** are in *Orion* which contains many familiar and no-so-familiar objects....

- **NGC 1981, NGC 1975, M43, and M42** are a stunning line of open clusters and nebulae which make up "Orion's Sword." High power telescopic views of each object are nice, but with binoculars you can capture them all at once in their glorious splendor. (Thanks, dad: your 7x35 binoculars work great!)
- **Colander 69** is a large open cluster that forms a hazy patch at "Orion's Head." In a telescope it appears as a loose dotted-line of stars. It is 1300 ly from earth.
- **NGC 2022** is a small but surprisingly bright planetary nebula just southeast of C69. It is faintly ring-like in a 12-inch telescope and is 4400 ly from earth.
- **NGC 2169** is a small open cluster that resembles the number 37 (yes, it really does!). It can be found in "Orion's Club," ½-way between *Betelgeuse* and *Alhena (Gamma-Geminorum)*, at the end of a bright arc of stars near *Xi-Orionis*. It is 3400 ly away.

The Solar System This Month

This month's **moon** will be new on Feb 4 and FULL on Feb 19. February's full moon is traditionally known as the Snow Moon; and since this month it will also be a Super Moon (see the January 2019 newsletter), I guess we'll call it the **Super Snow Moon**.

Mars is starting to fall behind the earth in our race around the sun and is slowly drifting towards the SW horizon. **Venus, Jupiter, and Saturn** are visible in the east at DAWN, with a **Venus-Saturn conjunction** Feb 18.

CAAA Club News

By Jim Feiste

The February meeting will be a 7pm on Monday, February 4, 2019 at the Central-Clemson Library. We will share our observations and experiences from the past 2 months (including Comet 46P, the lunar eclipse, etc.); then we'll discuss the February sky and any upcoming outreach events.

The March meeting will be Monday, March 4, 2019. at the Clemson Central Library. Telescopes and other equipment will be available for observing before and after each meeting for public observing and education.

The Solar System on February 15, 2019

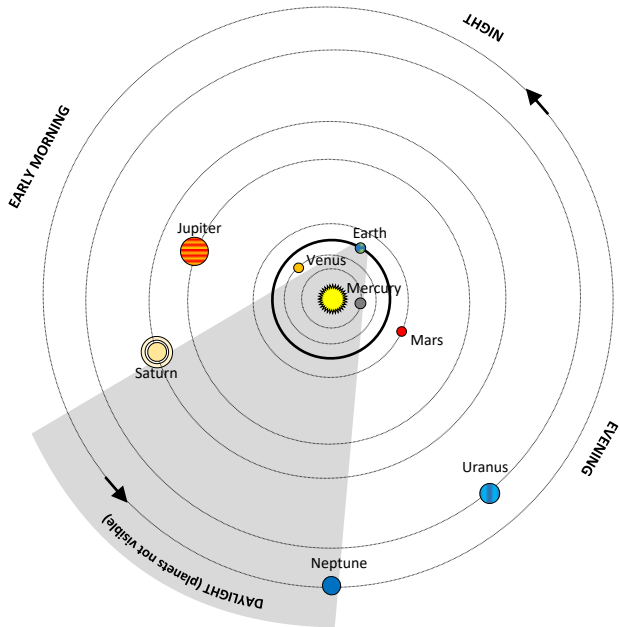


Diagram Credit: www.in-the-sky.org, Jim Feiste, CAAA

The Milky Way on February 15, 2019

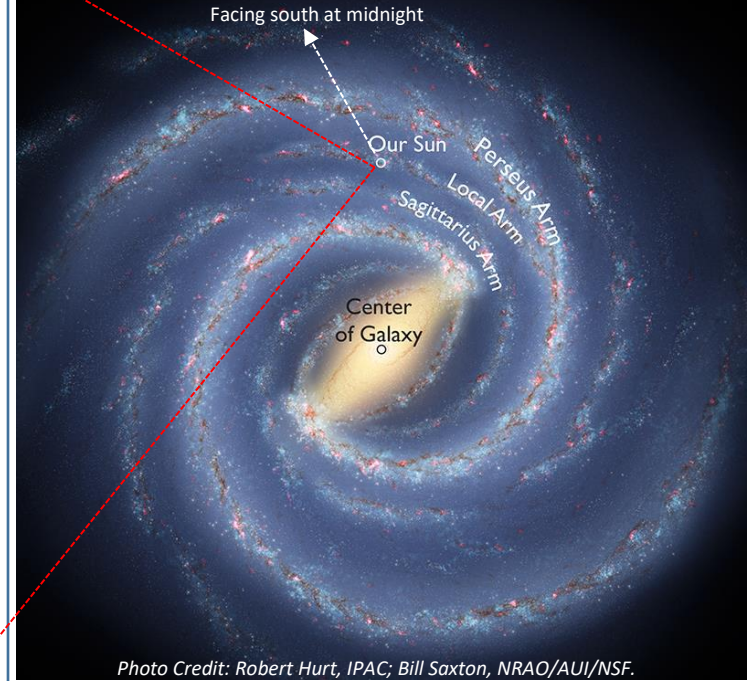
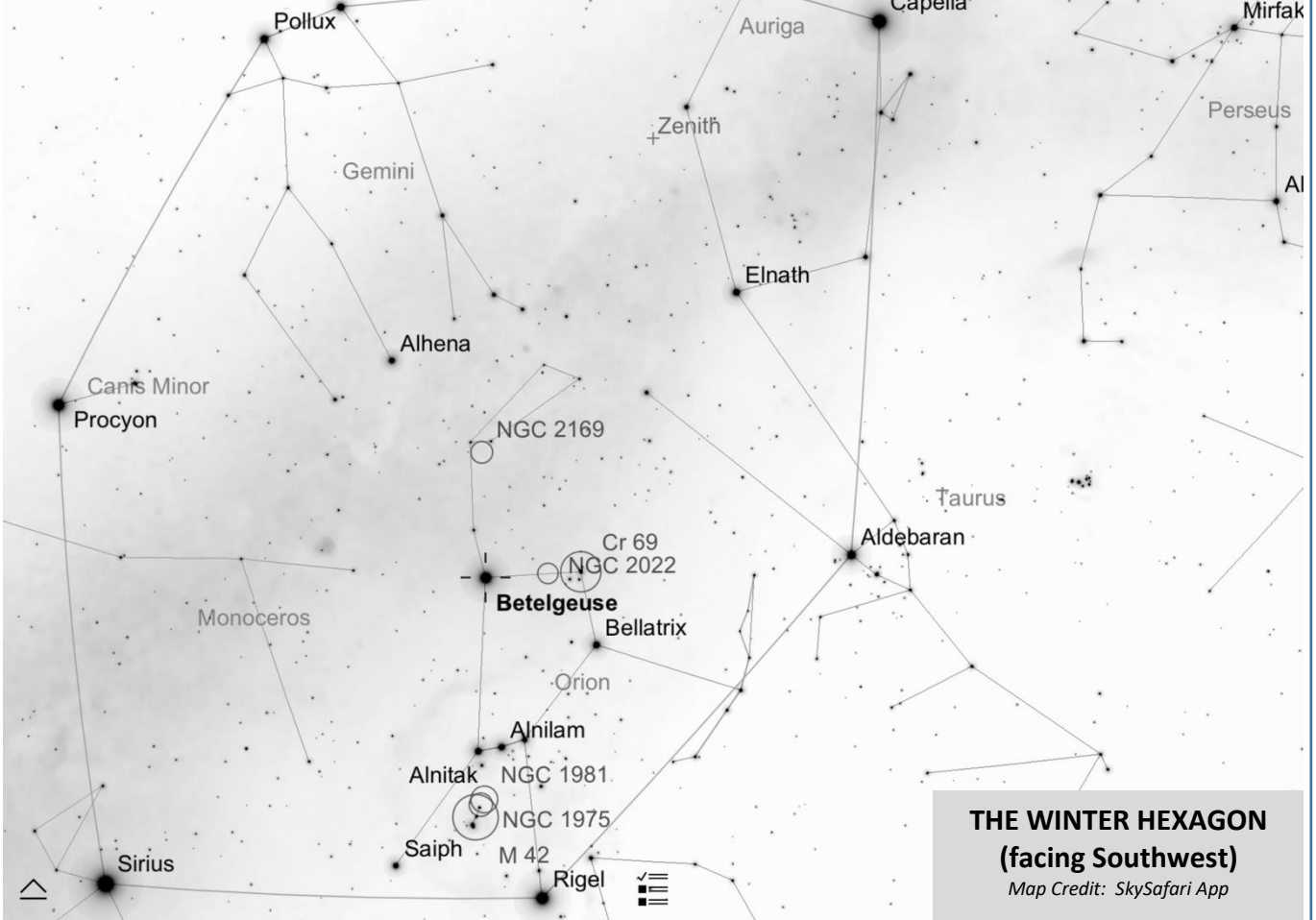


Photo Credit: Robert Hurt, IPAC; Bill Saxton, NRAO/AUI/NSF.

SW 206.6° Alt +72.0°



**THE WINTER HEXAGON
(facing Southwest)**

Map Credit: SkySafari App