Acadiana Sky

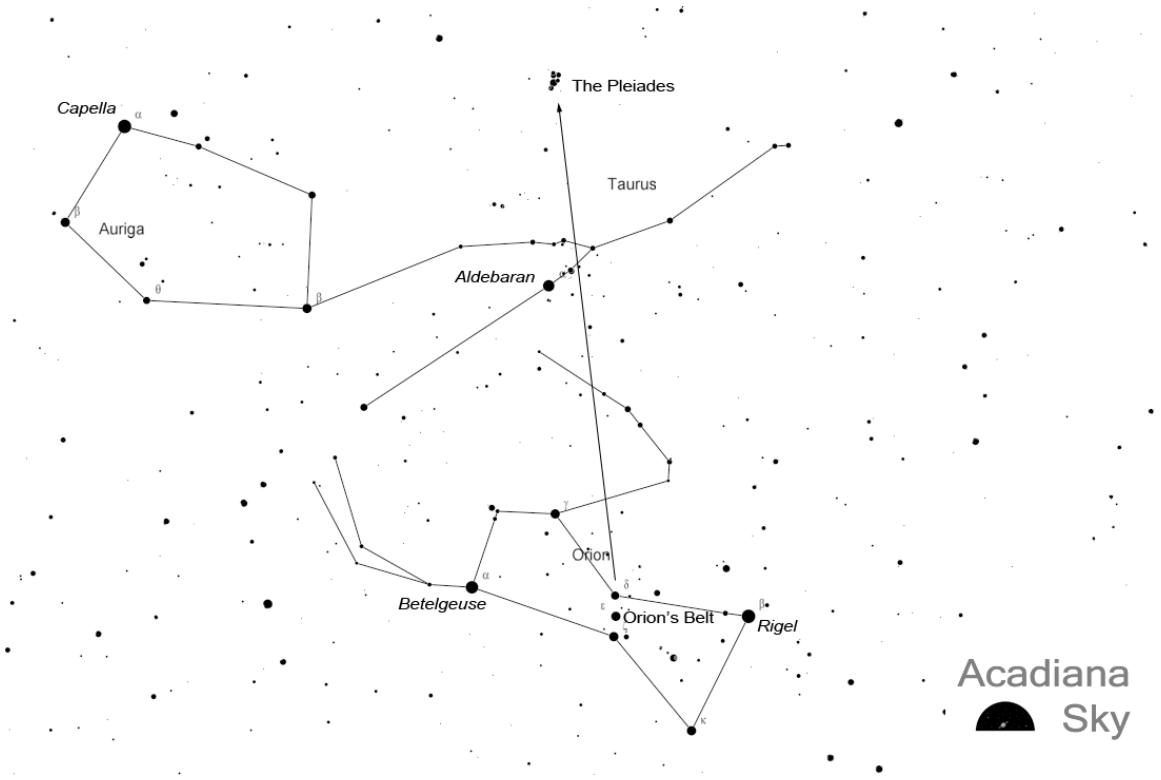
Pleiades Star Cluster

Find this part of the sky using
Acadiana Sky Star Maps

What It Is

Also called the Seven Sisters or Messier 45, the Pleiades are a "family" of stars born together and traveling together through space. It resembles a tiny dipper, and is sometimes mistaken for the Little Dipper.

Where It Is



The Pleiades can be seen with the unaided eye in moderately light-polluted skies, and are easy in binoculars or a lensed finder. Alternatively, look for the 3 stars of the Belt of Orion in the bright constellation Orion, the Hunter. Following the line of the Belt past the bright reddish-orange star Aldebaran will take you close enough to the Pleiades to spot them. This remains true however Orion is oriented in the sky, which will change depending on the date and time of night.

Why It's Cool

Under dark sky, most people can see 6 of the Pleiades stars with the unaided eye, but under extraordinarily clear, dark skies, up to 14 can be seen. Astronomers have found about 1000 stars in the cluster. Spectral studies suggest the cluster is relatively young, between 100 and 150 million years old. Recent measurements give a distance of around 440 light years from the solar system. That means we see the Pleiades stars as they were 440 years ago, and will not see them as they are today until their current light arrives in 440 years!

Acadiana Sky

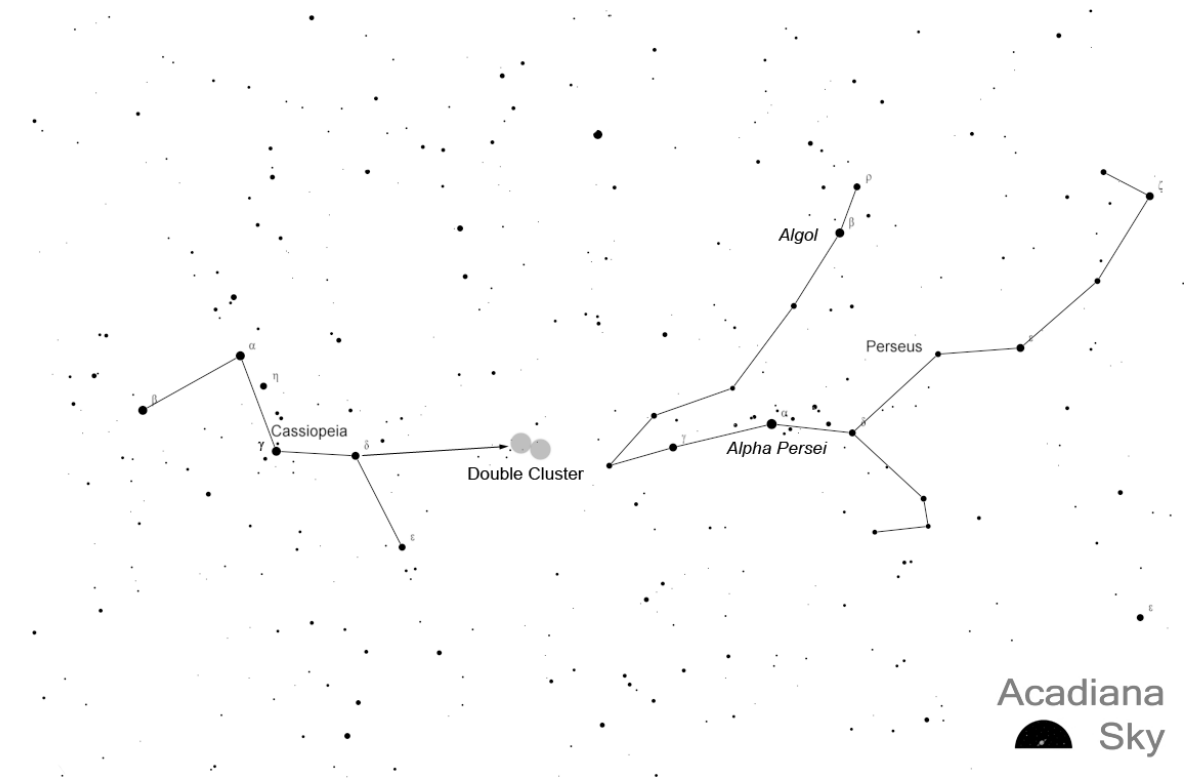
Double Cluster

Find this part of the sky using Acadiana Sky Star Maps

What It Is

Also called h and Chi Persei, the Double Cluster is a pair of star clusters that can both be seen in the same view

Where It Is



The Double Cluster can be seen with the unaided eye on clear, dark nights. Find the constellation Cassiopeia, the Queen, which is about the size of your fist held at arm's length. About 10 p.m. this time of year, Cassiopeia is oriented to resemble a letter "M." Follow the line in Cassiopeia from the stars Gamma (γ) and Delta (δ) toward the star Alpha Persei. The Double Cluster is about halfway between Cassiopeia and Alpha Persei.

Why It's Cool

Each member of the Double Cluster has a few thousand stars, with dozens to hundreds visible in backyard telescopes. Studies of the cluster stars indicate that the clusters are about 7500 light years distant, with an age of about 12.5 million years. Although they are about 7500 light years distant, the individual clusters are only a few hundred light years apart—they are in fact relatively close to each other. Imagine how spectacular such a nearby cluster would look if seen from a planet in the other one!

Acadiana Sky

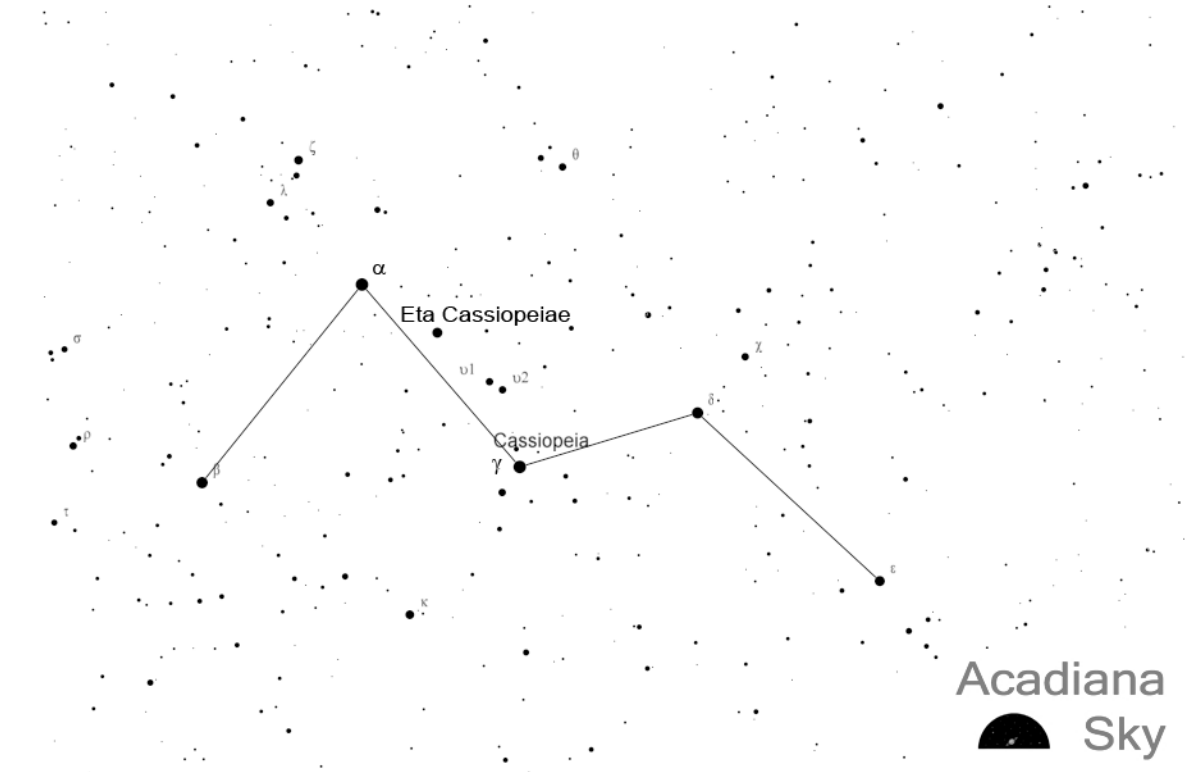
Eta Cassiopeiae

Find this part of the sky using Acadiana Sky Star Maps

What It Is

Also known as Achird, Eta Cassiopeiae is a binary star, two stars orbiting each other.

Where It Is



Eta Cassiopeiae is dimly visible to the unaided eye. Find the constellation Cassiopeia, which will look about the size of your fist held at arm's length. Early in the evening this time of year, it will resemble a letter "M." Eta Cassiopeiae is just outside the line from Alpha (α) to Gamma (γ) Cassiopeiae (the "downstroke" from the left side to the center of the "M"). Use your low power to find it.

Why It's Cool

The two stars of Eta Cassiopeiae can be split by even small backyard telescopes. The brighter one is yellow while the dimmer one is strikingly reddish-orange! The yellow star is very similar to the sun, and looks to us as the sun might look from there. The reddish-orange component is much cooler than the sun (hence its reddish-orange color), and smaller and less massive than the sun. They orbit each other in about 480 years. The pair is only about 20 light years distant, one of our neighbors in space. Right now, Eta Cassiopeiae is outside the line from α to γ Cassiopeiae, but 5000 years ago it would have been to the inside that line. Caused by the motions of the sun and Eta Cassiopeiae around the galaxy, that change is one of the few differences in the sky that you could spot if you went back in time to the time the pyramids were built!

Acadiana Sky

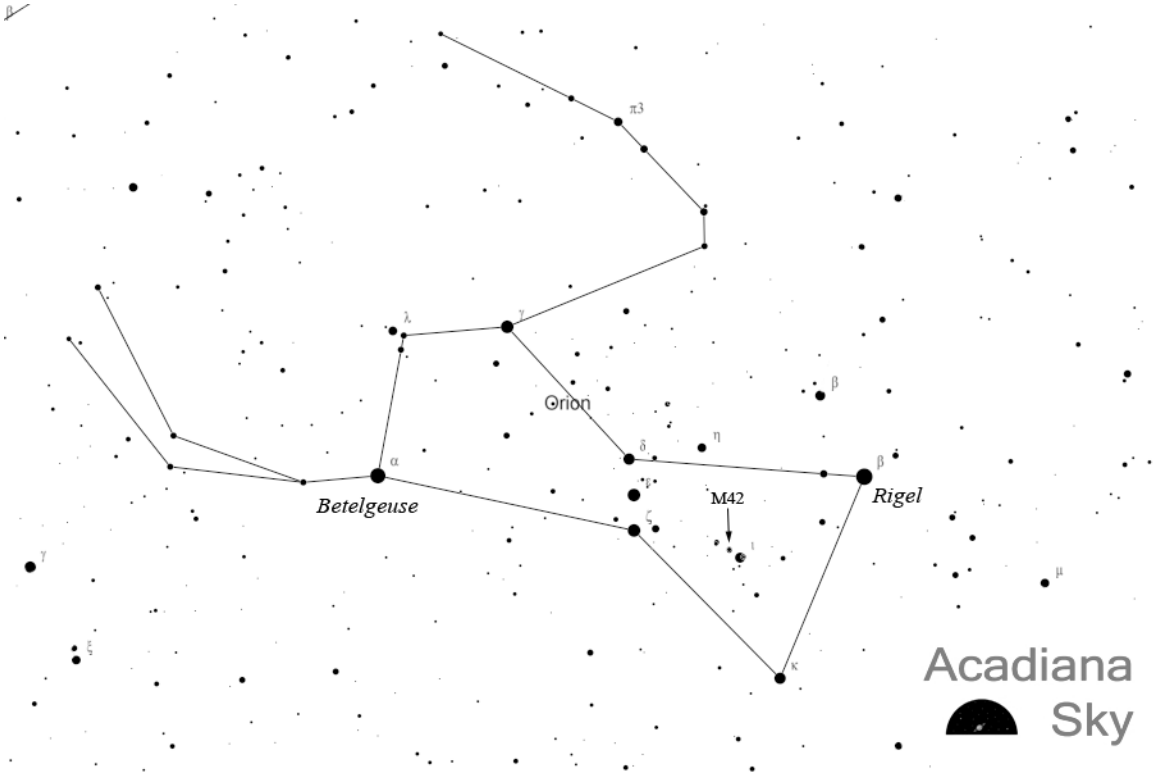
Messier 42

Find this part of the sky using Acadiana Sky Star Maps

What It Is

Messier 42 is a diffuse nebula, a huge cloud of gas and dust where stars are forming. A cluster of very young stars called The Trapezium can be found within the nebula.

Where It Is



M42 can be seen with the unaided eye as the fuzzy middle star in the Sword of Orion, the Hunter. Orion has three bright stars as his Belt, with two more above the Belt and two more below. Betelgeuse and Rigel are very bright. When the Hunter is "standing" straight up, the Sword hangs from the Belt. Orion is about twice as tall as the width of your fist at arm's length. M42 looks like a fuzzy spot in a lensed finder, and it's hard to miss when pointing to the Sword. Use your low power.

Why It's Cool

M42 is almost 1400 light years distant and 24 light years across, with enough gas and dust to form thousands of stars. It's the most spectacular example of a diffuse nebula in the sky. Use low power to examine its structure. Looking around the eyepiece view instead of looking right at M42 will bring more sensitive parts of your eye into use, revealing more detail. The nebula will fill your view. The Trapezium looks like a box of 4 stars deep within the nebula, and provides much of the energy to make the gas glow. The darker your sky, the more you'll see in this showpiece object.

Acadiana Sky

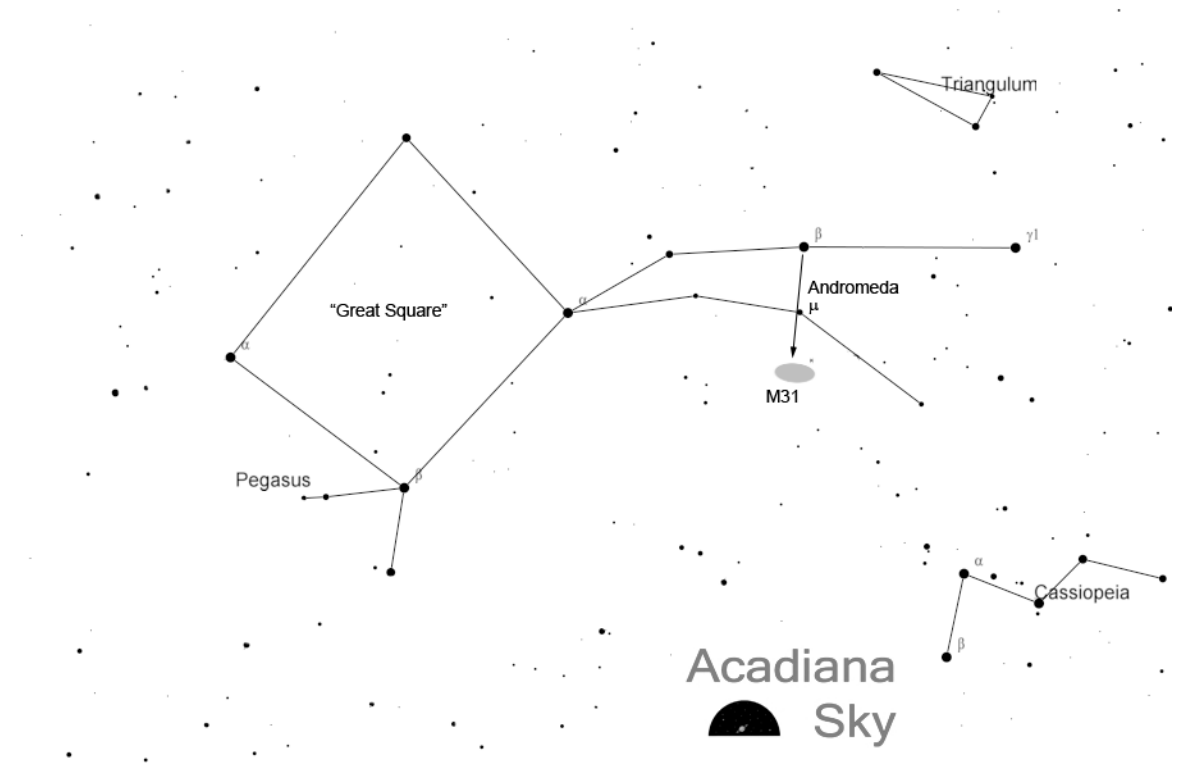
Messier 31

Find this part of the sky using Acadiana Sky Star Maps

What It Is

Also called the Andromeda Galaxy, M31 is the nearest spiral galaxy to our own Milky Way. The Milky Way, several smaller galaxies, and M31 form our Local Group of galaxies.

Where It Is



M31 can just barely be seen with the unaided eye under rural skies far from lights, appearing as a fuzzy spot. It's between the Great Square of Pegasus and Cassiopeia. Beta (β) and Mu (μ) Andromedae, the second pair of stars in Andromeda as you move away from the Square, are very good pointers for M31. Go from Beta to Mu, then about the same distance past them to find M31. It will look like a soft, oblong glow in your low power eyepiece. On some nights, a very faint star near M31 may be easier to spot with the unaided eye.

Why It's Cool

The Andromeda Galaxy (the most distant thing visible to the unaided eye) is about 2.5 *million* light years distant, and the light we see now started on its way before there were people. It's a bit over 200,000 light years in diameter and contains nearly a trillion stars (a little bigger and more massive than the Milky Way). Most of what is seen in your telescope is the inner part of M31—under very clear, very dark sky, the outer portions extend out of a low power view. Larger backyard telescopes may reveal its much smaller companion galaxies M32 and M110.