

HEAVENLY NEWS

“The Milky Way”

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CPRC Community Observatory

Communityobservatory.com

You've got to love this time of year. The nights are warm and the skies are clear. These conditions conspire to bring out even the most casual of stargazers. So it seems the timing couldn't be better to highlight one of the most basic yet remarkable night sky features: the Milky Way Galaxy. As the summer marches on, the Milky Way takes center stage on a nightly basis. While searching for objects in the narrow fields of view provided by my telescope I tend to overlook the obvious beauty the night sky offers. For casual observing, the Milky Way is as brilliant as it gets and requires no equipment to see beyond your own eyes.

It appears from the southern horizon and wafts on a northerly course throughout the night sky. On a dark sky night this stellar convergence is the premier “naked eye” target. Some amateur astronomers claim that under the best of conditions the Milky Way can actually cast shadows! So what is it that we are looking at and why are so many stars in one area of the night sky?

The answer is that we're looking back through the interior of our home galaxy; a concentration of stars and star stuff stretched over an immense distance. But this visible swath of stars in the sky is only a part of the galaxy itself as virtually every point of light seen in the night sky is a member of the Milky Way and only when we gaze back towards the center do the opaque cloud of stars become visible. It appears cloudlike because there are more than 200 billion stars contained in our galaxy. While we can't see anywhere near that many in our sky, it's easy to understand why many ancient civilizations thought of this cloud as the “milky” way.

Our galaxy, if seen from above, resembles a spiral with a concentration of stars in its center and several arms swirling around the core. When viewed edge-on, one would see a flat plain of stars with a fried-egg looking bulge in its center. From edge to edge it would measure roughly 100,000 light-years across. When describing the size and distance of anything in space, it's helpful to bring it down to a more familiar scale, so try this:

If the Sun were the size of a bowling ball, the Earth would resemble a peppercorn around 26 yards away from our “sun”. The nearest star to us, Proxima Centauri, would still be 4,300 light years away! In fact, if scale down even further to describe the size of our galaxy, where the Earth-Sun distance is 1/30th of an inch, and the entire solar system is two inches in diameter, the average distance between stars in the Milky Way would still be around 200 yards, and would still be roughly the size of North America! Or perhaps Sir James Jeans, 20th century English physicist, astronomer and mathematician and co-founder of British cosmology, explained it best when he said, “put three grains of sand in a vast cathedral, and the cathedral will be more closely packed with sand than space is with stars.”

Please join us as the CPRC Community Observatory when the skies are clear on Friday, Saturday or Sunday evenings this summer from 8:30 PM – 10:30 PM and docents will gladly

take you on a star tour of the Milky Way Galaxy. For information about the Observatory, driving directions and closure information please go to www.communityobservatory.com