

Pretty Big Shoes to Fill.

While out one night looking up some remote NGC Objects, I got to wondering "What am I doing? Here's a galaxy I just found. I didn't discover it. I looked it up in an atlas, and star-hopped my telescope to it. Why?"

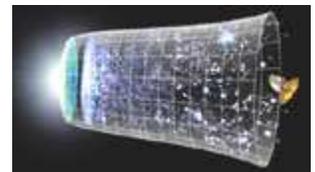
Astronomy - from Greek "Astro Nomos" meaning "Star Law"

The laws that govern the motion of the things we see moving in the sky; the Sun, Moon, planets, and the odd comet against the background of stars, seems simple. It used to be. Of course, with the invention of the telescope, we've learned of asteroids, more planets, moons around other planets, nebulae, and other whole galaxies, to paint a much bigger picture than man could have ever imagined just a few hundred years ago. In recent years, however, astronomy has taken on a whole new role. Now we look to astronomy in our search for answers to life's biggest questions.



Stardust - NASA's mission to comet Wild 2. Its basic goal was to bring back samples of material blasted off the comet. Success! The craft returned safely with intact samples up to 1mm in size. The mission's loftier goal though is to see if any organic compounds or even microscopic life forms exist in these samples. Could Comets have seeded life on this little blue pearl?

WMAP - looking at the oldest light in the universe. By mapping the "Infant Universe" the program has produced a new image of what the universe looked like in it's first trillionth of a second. Furthermore, the mission has pinpointed the age of the universe to 13.7 billion years. Before, it was loosely confined to anywhere from 12 to 15 billion years.



SETI - the Search for ExtraTerrestrial Intelligence. The bigger the picture gets, the more we have to wonder about the existence of life and whole civilizations out there on other planets. We've been listening for decades, and we've even sent out a few messages ourselves.

NASA's **NEO** (Near Earth Object) Program. We're searching the skies, looking for objects which might come in contact with our home planet. If something could impact the Earth, we hope to know about it in time to do something about it and prevent what could be the end of life on Earth; or at least ours.



Space exploration has been looking at the creation of the universe, the origins of life on Earth, and even preventing the destruction of the earth. These are some pretty big shoes to fill. These questions used to be, and for many people still are, the domain of religion. We may never answer them fully, but we are getting closer. Of course, if we do find out for sure that "Yes, life came to Earth aboard a rogue comet caught up by the gravity of our Sun," the next question is "Where did life FIRST emerge and how did living organisms come to hitch a ride on a comet?" If we find out for sure that "Yes, this is exactly how the Big Bang happened, when and where," the bigger question will be "Why?" and "What was before the Big Bang?" Something must have caused it. Causality says that the cause chronologically precedes the effect. If nothing existed, not even time, before the Big Bang, than it had no cause. This would mean that the universe is the effect of no cause; it just is.

So where does that leave you and me? Out in a field with a telescope, looking at star charts and hunting down faint fuzzies that we know to be Galaxies and Nebulae. What are we doing in the big picture? That's like asking a model train hobbyist what he's doing for the railroad industry. Nothing. Amateur astronomy is a hobby. We look for things we already know to be there, with the exception of comet hunters. Most of us just like to be out under the stars away from the hustle and bustle of civilized life. It's nice to look at the wonders of the universe and just marvel at them. Consider the Orion Nebula. Here is the beautiful result of a massive explosion that leaves gas and dust strewn all over the place. All this debris is collecting to form new stars, new solar systems and maybe someday, new life and a new civilization.

RASC Belleville member, Dave Cotterel said it best, "Never forget the importance of just looking at something because its pretty." So keep looking and marveling. Whether you look and marvel at God's Creation, or the vastness of our scientific advances, just enjoy the view.