It's the Thought That Counts

For the first time in a long while, and the first time for me, a nova appeared during a Griffith public star party. What a sight for me and for the public through my scope !

But one might well say, "It's just another star", and it certainly looks just like any of the hundreds of thousands of stars visible through any telescope. So what's appealing about seeing a speck of light that looks like every other speck of light? I guess it's the thought behind what you are seeing. It's rare for novae to be this bright. If you'd looked at that patch of sky on the 13th, there wouldn't have been anything there. And it won't be there for long. Perhaps in a hundred days, Nova Delphinus will fade again into obscurity.

So when I and a couple of dozen people observed Nova Delphinus through my telescope, I told them something about what they were seeing, and the reaction of many told me that it made what they were seeing special, even if it was a speck of light. It helped that I also mentioned to them that this was not a nuclear reactor steadily purring and churning out energy at a steady pace like the other stars around it, but one of nature's thermonuclear bombs, as different from our Sun as a camp fire is from a bundle of dynamite.

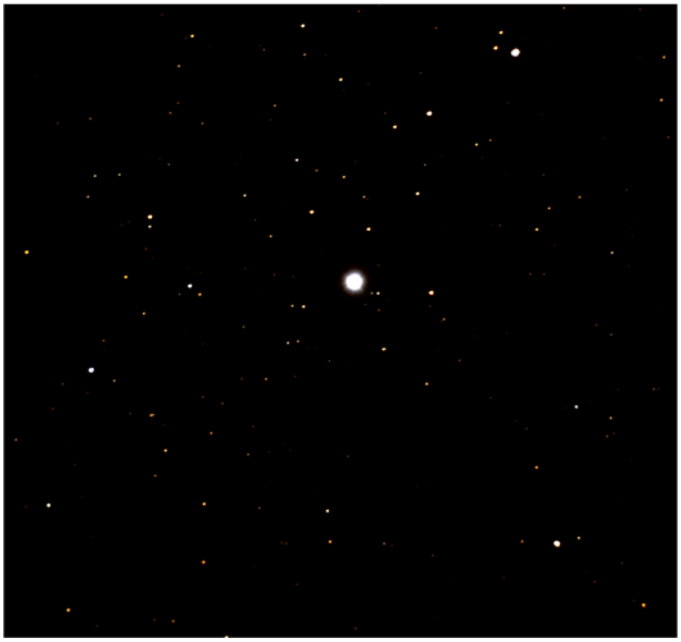
But it got me thinking that seeing a faint fuzzy through any telescope does not afford one the same view as the "view" through images. Certainly there is debate as to whether seeing an image, whether taken by one or not, is the same as seeing directly through a telescope. I've about this for many years with many people. I personally like the appeal of doing my own imaging and "seeing" objects that way, with more detail and contrast than I could achieve with my own corrected vision. But the knowledge of what you're looking at through a telescope, no matter how you do it, is one of the things of Astronomy that appeals to just about all observers, especially amateurs.

Getting Excited Over Next-to-Nothin'

But when you think about it, this has been the case for observational Astronomy since the telescope was first used. It means looking at something that, on face value, is barely discernible, is faint and hard to perceive, and defies quick interpretation. For instance, Galileo could barely see the disk of Jupiter and the satellites that bear his name. He certainly didn't make out the Red Spot, although it was probably there. Same for Saturn and its mysterious "extensions". Remember, Galileo's optics were perhaps 1-inch in aperture at best, and considerably cruder than any modern telescope. Even modern binoculars give clearer views than anything he could make. Edwin Hubble pushed the limits of the then brand new 100-inch Hooker reflector to find the Cepheid variables he needed to measure the distance to the Andromeda galaxy, and by doing so he end a long-standing debate as to whether these nebula were within or outside our Milky Way galaxy. Now these days amateurs can do the same work on our nearest large galactic neighbor with perhaps a 10-inch telescope and CCD cameras, taking far less time to get an image, and comparing images on a computer quickly to determine which stars are Cepheids. So astronomers have been engaged in this mind-game for centuries, a sort of intellectual "making mountains out of molehills", or perhaps it's "seeing the mountain behind the molehill".

And now a new star in our skies, a bright speck of light that was not there before. Before August the 13th at that spot, invisible to our eyes and telescopes, a white dwarf crowding the mass of our sun into a space as large as the earth, along with its companion perhaps as large as our sun, both invisible due to their distance from us. And now the dwarf has its surface explode in a runaway fusion explosion. And like many things in Astronomy, it's the thought behind what you're looking at that makes the image special. ✧

LAAS member Dr. Barry Megdal took this image of the nova from his backyard in Northridge on the evening of August the 18th. Five 15-second luminance frames were stacked from images that were taken with an Astro-Physics 206mm F8 refractor and a FLI 16803 camera. This is a crop of the central portion of the frame. The background is non-uniform due to sky glow.



Fellow LAAS member Steve Cooperman took this image using his Nikon D7000 camera at the prime focus of his Meade 8" LX200GPS equipped with an equatorial wedge. Six images exposed for 30sec each at ISO 1600 were combined using ImagesPlus 5.5, then some brightness/contrast tweaking was done to enhance the final image.