#11 December 2013 *Cameraderie*
Tony Hallas (1945-)

Tony Hallas is a prominent astrophotographer. He writes a monthly column for *Astronomy Magazine* on imaging. He frequently lectures on astrophotography, produces instructional material, has published his images in many prominent magazines, won oodles of prizes, and runs a custom photo lab business in Ventura, California. His wife and partner in this work is Daphne Hallas. Tony is known for the beautiful clarity and fantastic color of his images of the night skies. You will see what I mean as we look at his images.

My wife was friends with Tony's parents, Binky and Andy Hallas, many years ago in Izmir, Turkey, and I got to know them through social visits there. They often told us about their son's photographic career. Now that I am writing these columns for *Cameraderie*, I realized I had an indirect link to an important living photographer. So although I had never met Tony, I emailed him. We reminisced about his parents, and he readily agreed to be the subject of this month's column, in a question-and-answer interview format.

But first, here is the link to his website—browse around at his fantastic photographs of the night sky: http://www.astrophoto.com/. Here are a couple to tantalize you:

Hale-Bopp Comet

(http://www.astrophoto.com/hbna.htm)

Annular Eclipse (the sun is visible as a bright ring around the moon at the maximum of the eclipse)

(http://www.astrophoto.com/AnnularEclipse.htm)

The Interview

Q: How and when did you first become interested in photography?

A: *I have a strong background in photography: a professional bachelor of arts degree from Brooks Institute and an early fascination with photography dating back to my first box camera when I was a child growing up in Turkey.*

Photography literally saved my life. I was sent to Vietnam in 1968 as an infantryman in the First Division but through some major miracles became a combat photographer for the division after spending 1/3 of my tour in combat. And even though combat photography is still dangerous, it was nothing like doing the actual fighting. So I credit photography with saving my life.

Q: What did you do after your tour in Vietnam?

A: *I was always fascinated with the "lab end" of photography. It was one thing to take a great picture, but it was the actual physical creation of that image with enlarger, paper, and chemicals that resulted in the work of art. A good lab technician could make or break a great image, and I strove to learn all I could about this aspect of imaging. I eventually worked my way into the Thomson Photo Lab in Coral Gables, Florida—one of the best photo labs in the US, and worked under the guidance of Alto Davis, without a doubt one of the greatest lab technicians of all time. Alto had a way to simplify the complex, inventing his own way to deal with things like finding the correct color balance for printing internegatives (a color negative you made from a slide—it was the best way to maintain correct contrast and color). The specialty of the lab was working with color.*

After five years I grew homesick for California and the West and decided to "take the plunge" and open my own color photo lab in Ventura, CA. It was scary times for a while, but after a year the lab took off. It eventually grew to a 50-employee monster serving amateurs, professionals, and businesses, among them Amgen and Patagonia situated nearby.

Q: And how did you get interested in astrophotography?

A: *One evening I was sitting on my balcony near the ocean in Ventura and I happened to look up. There was a strange star overhead that didn't look like a typical star. I had recently bought a small 8" telescope to check out the surf across the harbor, and decided to investigate this strange star. It took 15 minutes to try to find the "star," but when I did, I was stunned—it was SATURN !!! And I could clearly see the rings around it. Up until this time I had always thought that you needed monster, professional instruments to see anything in outer space. This was like the proverbial lightning bolt—anyone could do it!*

For awhile Daphne and I would go into the mountains behind Ventura armed with star charts, binoculars, and my 8" telescope. Fuzzy little nothings in the binoculars would become a galaxy or a star cluster or a nebula with the use of the scope. I subscribed to astronomy magazines and

one day it hit me: "Hey, I'm a professional photographer with a photo lab, I'll bet I can take pictures like in the magazines!"

So one night we hauled everything back up the mountain, I put in a roll of ASA 800 color film, aimed at a target, and opened the shutter. To make sure I "got it" I even bracketed the exposures—I think it was for three and five minutes. The next day I couldn't wait to develop the film, and when it came out of the dryer, all I had recorded were some squiggly lines that looked more like Arabic writing. Two things became instantly obvious to me: I was an idiot, and there was a LOT more to astrophotography than I had imagined.

Lucky for me two of the most accomplished amateur astrophotographers were in my Ventura astronomy club and they introduced me to bizarre concepts like polar alignment, image guiding, film hypering, and knife edge focusing. I love a challenge and soon took off with this new avocation, even developing my own techniques to enhance color and detail. It didn't hurt to be an accomplished lab technician with a full service photo lab at my fingertips.

Q: Please tell us about the technology?

A: *I was lucky to be born when I was because astrophotography has gone through three distinct formats during my "career": (1) film and film enhancement, (2) film scanned into digital format and processed digitally, and finally (3) the current era of total digital media via the use of highly sophisticated digital CCD* [charge-coupled device] *cameras and a myriad of softwares to process the images. I am currently using a PlaneWave 17" CDK Cassegrain on an Astro-Physics 1600 mount with an SBIG class 1 STX 16803 CCD camera. With this setup I can record items more distant and more faint in greater detail than the Palomar 200" could using film!!! Of course if you put a camera like this on the 200"—no contest.*

With my new equipment I plan to reimage most of what I have taken over the last ten years. The advances in equipment, software, and technique allow a level of performance not possible just a few years ago. If you would like to try your hand at this, you can start out "small" with just a DSLR camera and a camera lens. A 30-second exposure will record much more than the human eye can see. From here you can get a small "tracker" and take longer, untrailed images from remote, dark sites of things like the Milky Way and the larger nebulas. At this point you will be ready for the "deep pocket plunge" and acquire a real mount, telescope, and a CCD camera. HIGHLY RECOMMENDED that you join your local astronomy club and see what more advanced imagers are doing before you invest!!!

Astrophotography can be at times very rewarding and also extremely frustrating. Maybe it's a little like golf—once you get that first really good shot, you're hooked!

Q: From what locations do you shoot?

A: *I image from two locations. One is my home in Foresthill at an elevation of 2500 feet (above the fog, below the snow). If you drew a line from Sacramento to Lake Tahoe, we would be about halfway up that line in the foothills of the Sierra. (note: Sierra is the plural; you can always tell a "valley person" because they call them "the Sierras") My other location is an RV resort up in*

the NE corner of California in absolutely dark skies. We discovered this gem by accident looking for an "ultimate dark sky location." There is this resort complete with grassy fields, spotless bathrooms with hot showers, a nice restaurant, and an 18 hole golf course (!!!) out in the middle of absolutely nowhere with the darkest skies in the US. So we spend 4- 5 days a month up there when possible. There is a picture of the Summer Milky Way taken from there in my "latest images" section to give you an idea of the sky quality. It is called the Likely Place RV Resort. [see below and on Tony's website at http://www.astrophoto.com/LikelyMWay.htm]

Milky Way from Likely Place

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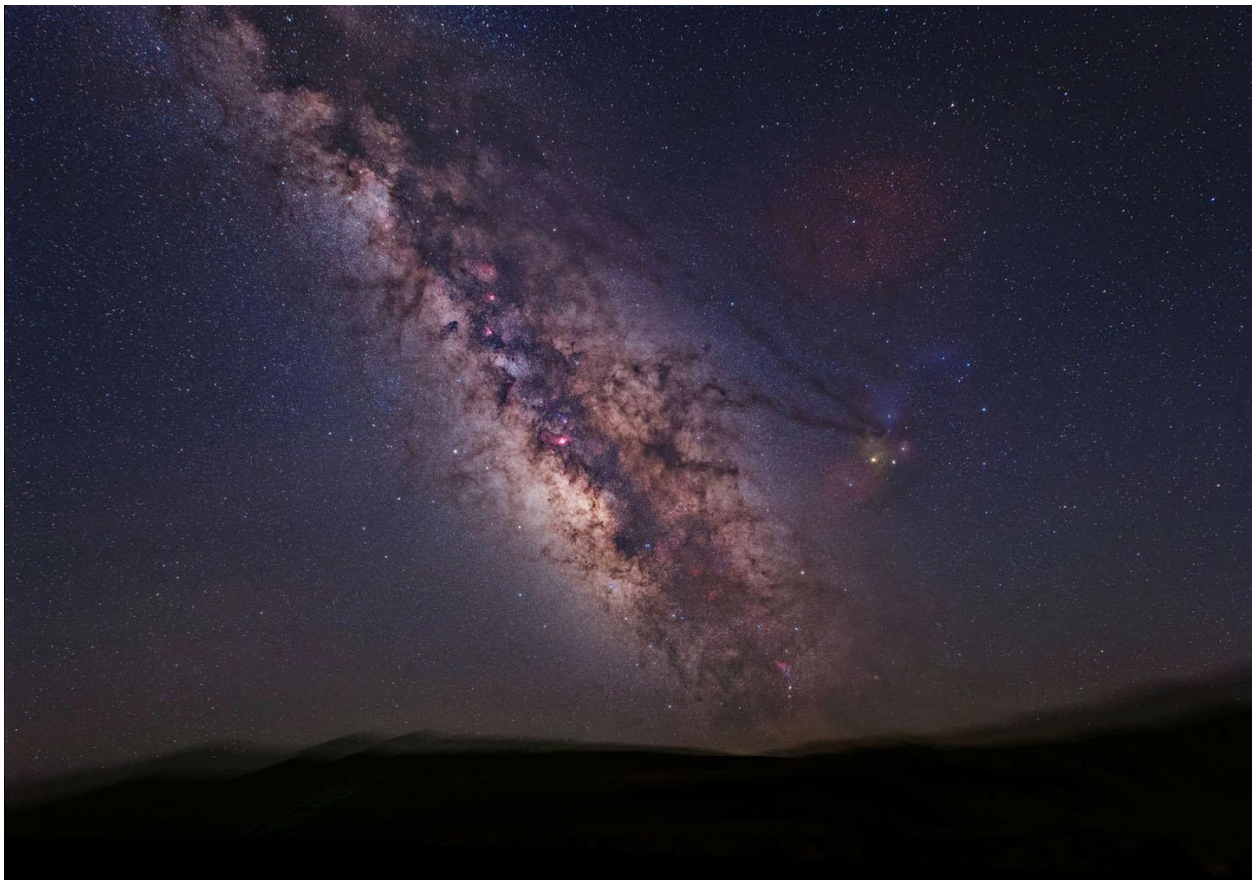

This is how Tony signs his emails:
Clear skies,
--Tony Hallas