

# Photonic Cleaning Technologies presents; Pine Valley Observatory in the Midwest – Michael Murphy



NGC4565 Needle Galaxy

As an amateur astronomer, science and technology have always fascinated me. Starting in my childhood, my first telescope was a department store 60mm Sears refractor kit gifted at Christmas; it came with wooden tripod legs, assorted eyepieces and barlows. I will never forget my first glimpse of the moon, it felt like I was there; I couldn't believe as a 10 year old this was hiding in the sky. My curiosity & dreams sprouted into building a 8" Newtonian reflector going one step above the common 6" size. I was inspired by a popular paperback book in the early 70's called, "all about TELESCOPES" by Sam Brown, sold by Edmund Scientific. Eventually, in 1972, I saved enough money for mail ordering parts, and the first was a mirror blank kit by Edmunds which came with various silicon grits. At 11-12 years of age I started to boldly grind away, without human guidance other than what I read, on a 55 gallon barrel in an old dingy basement. With farm life, there were

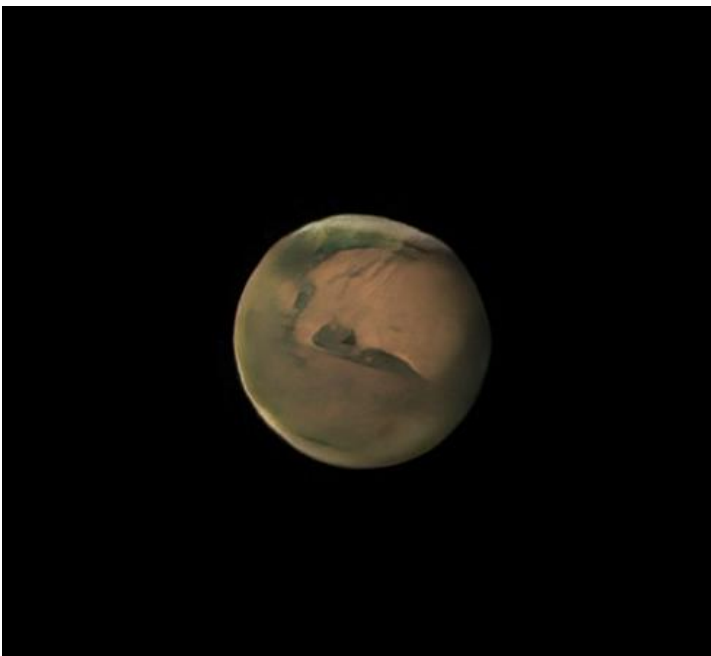
always chores, and time was always precious. Soon I found out it would take a lot longer to complete this project than I figured and a few years later decided to send the mirror away for finishing & aluminizing. My uncle also taught high school shop, so I asked if he could help machine a few aluminum casting parts completing the R.A & Dec. housings precisely to a 1 inch shaft, they were Pacific Instruments, a company long since deceased similar to Edmund Scientific. Dad & I welded legs for caster wheels to a 3" pipe creating a mount. Other parts like eyepieces were ordered from Meade just after it started business. Once this Newtonian telescope was finished I used it off and on over the next 20 years until the mirror began tarnishing. Getting it re-aluminized was completed just in time to witness comet Shoemaker Levy's fragments making big holes on Jupiter's surface; it was awesome. Unfortunately, at that time, I was a visual observer, but that was the trigger in deciding to start learning the capture process.



NGC4567 Siamese Twins



Jupiter

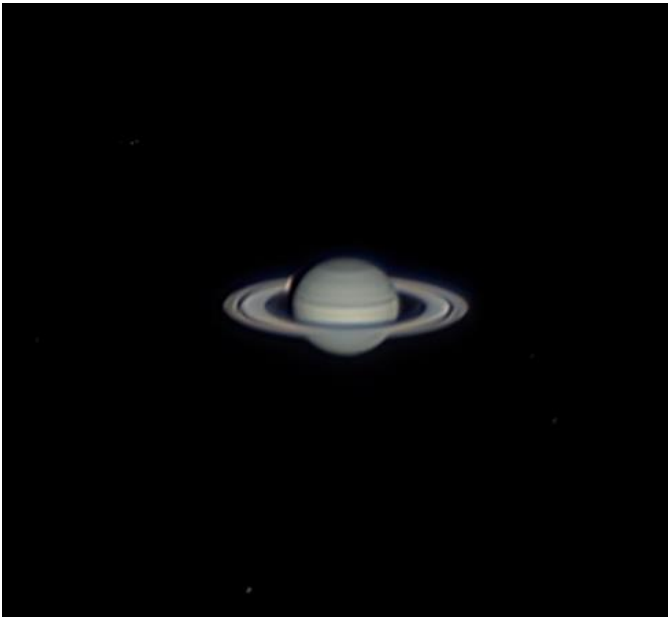


Mars

I started first with a film SLR camera on a tripod and captured the famous Hall-Bopp comet, using 50 and 200mm lenses in March of 1997. To this day, I still have those pictures; I've converted them to digital.

Exploring the universe gave an exhilarating feeling becoming one with the cosmos, filling my head with dreams like becoming a famous observer or physicist. After a year of taking agriculture as my college major, I decided to pursue a two-year degree at a small Midwestern college and changed majors to electronics, a field in which I performed well during ASVAB (Armed Services Vocational Aptitude Battery) testing offered by the military in high school in the late 70s. This was a good fit since I scored in the 90's for electronics & science. After receiving a two-year degree, I took a job as a broadcast engineer at a PBS station for 18 years; I then moved on to a telecommunications/electronics position at a prominent utility company. During these middle aged years astronomy had taken a back seat due to life circumstances. Then just 8 years ago a spark was ignited and awakened a sleeping giant. The spark was initiated by an app called "Sky Guide". My daughter-in-law, a school teacher, was running the app on her iPad and the app music was mesmerizing and very triggering. After moving five times during a twenty year span, my final residence ended up a satisfactory place to build an observatory.

Around age 56, thanks to the Lord, I began looking to purchase a modern telescope. Eventually I came across a used 14" SCT at an affordable price; after traveling 250 miles I liked what I saw and purchased it. I found an SCT telescope was quite a challenge learning a new design and requiring home study. It was surprising how technical amateur astronomy had become; this was my first Go-To telescope. Once I set the new telescope up and explored the heavens looking at "Tonight's Best Tour", I was overwhelmed and caught up hook, line and sinker; and couldn't wait for the next clear night! After my first SCT, I eventually ended up with the current SCT, No.3, a 16" F8 Meade on a AP-1600 mount, with a piggybacked 5" F7 Orion EON refractor for the 2022 Mars opposition.



Saturn



Backyard Observatory

Turns out my 16", after much study, had the optic train not axially centered to the electronic focuser, or like the visual back (electronic focuser) was not axially aligned, which was corrected (another long story). During this time I realized my optics were in need of a better cleaning method.

Every time I would research how other amateurs cleaned their optics my results were never to my liking. Doing a more intense search, eventually I happened into the Photonic Cleaning Technologies system being demonstrated on a YouTube video. Later I found Photonic's website which showed the big professional telescopes with fantastic results. That was enough for me to see the proof so I decided to give the First Contact Polymer method a try. The results were surprising as a first timer, yet theory made perfect sense. The learning curve for applying this solution was fairly quick, and I was even able to remove accidental finger prints on the corrector glass using their included spray cleaner. It is an amazing system that easily removes all dust, making optics look like they just came from the factory!

Currently (near the end of 2022) I have been trying to capture Mars images, and December has provided virtually no clear skies for Northern Indiana. By next Spring I'll be changed over to Deep Sky imaging and captures. Studying the stars can occupy a lifetime with almost any size telescope, but having a larger telescope can nearly be infinite possibilities.

Are you a First Contact Polymer user and Astro Imager? Contact us at [sales@photoniccleaning.com](mailto:sales@photoniccleaning.com) for the chance to be selected as a featured guest in an upcoming issue of Amateur Astrophotography Magazine courtesy of Photonic Cleaning Technologies! Not familiar with our products? See our ad on the next page or visit us at <http://www.photoniccleaning.com>