

Research Committee report for June 2017

Because of clouds and vigorous twinkling when there are no clouds “the atmosphere above NJ has gone to heck” says Clif Ashcraft.

Solar system Observations: Clif has successfully mooned his township. A framed matted print of his March first quarter moon image is hanging in the Millstone Township Town Hall. He has also imaged Saturn and has seen in Jupiter’s equatorial zone a persistent small patch of clear blue sky on which has lasted for weeks. His atmospheric dispersion compensator helps prevent colored fringes when the planets are at low elevations.

Helder Jacinto imaged both the Moon and Jupiter in the same frame, showing just how tiny Jupiter appears from our vantage point on Earth. It looks to be about the size of Crater Plato.

Star Observations: Helder also took a nice image of the globular cluster M5, catching the Cepheid variable star V42 at a dim stage in its 25.7 day cycle.

Tony Sharfman caught the constellations Cassiopeia (11 minutes with a Canon Rebel) and Cygnus (25 minutes) over Shohola Marsh Reservoir in Pennsylvania. He encourages us all to go out there and experiment :)

Galaxy Observations: Tony and Bobby Marinov both imaged the Milky Way over the reservoir.

Helder took six hours of integration of NGC 4565, the needle galaxy, in full moonlight from Union. He

also took five hours (10 minute subs again) of the **Draco triplet, face-on spiral NGC 5985, elliptical galaxy NGC 5982, and edge-on spiral NGC 5981**, which are approximately 100 million light-years away from us. **M64, the black eye galaxy**, was targeted in 1.5 hours (2 and 3 minute subs) by Tony as a trial of our new C14 HD edge telescope at Jenny Jump. M64 is only 17 million light-years away. He says that this telescope is a light bucket and will definitely be a galaxy hunter!

Presentations: “Speckle Interferometry with a Low Read-Noise CMOS Video Camera” by Clif is going to be reprinted in Astronomy Technology Today. I gave a talk on “Pro-Am Collaborations for Astrophotographers” on June 18 for the Astro Imaging Channel. Look in past programs at <http://www.theastroimagingchannel.com/>

Other activities: Tony and Aaron Zuckerman opened a discussion on neutral density filters for camera lenses for the upcoming solar eclipse.

Mary Ducca visited Dennis Conti in Annapolis MD. Tolga Gumusayak showed the wonders of the night sky to visitors to the National Mall in Washington DC. I represented Sperry Observatory at the annual KELT exoplanet workshop at Lehigh University in Bethlehem, PA.

Respectfully submitted, Mary Lou West, Research Chair

