

Research Committee report for February 2017

This month opens Jupiter season AND galaxy season!

Solar system Observations: Clif Ashcraft imaged the crescent Moon, the first quarter Moon, and dramatic sunrise shadows in Crater Plato. He also pointed out the creeping shadows in his friend Mike Brown's lunar image, and then imaged *Jupiter*. Note how small the Great Red Spot has become. Helder Jacinto imaged a quietly seething sun.

Star Observations: Dennis Conti did photometric observations of the *transit of a disintegrating asteroid* across the polluted white dwarf WD1145 in support of concurrent HST observations. Jim Nordhausen's AAI group observation was cancelled by thin clouds.

Milky Way Observations: Helder imaged the California Nebula (NGC1499), the Cone Nebula, and the Christmas Tree Cluster. Tolga Gumusayak imaged the Rosette with Mike Shelby in Thailand. Tony Sharfman imaged the Tadpoles, the *Monkey's Head (NGC2174)*, M78, and Lower's Nebula (Sharpless 261), and found that a 4" telescope did well.

Galaxy Observations: Tony imaged the Leo Triplet and the barred spiral galaxy NGC2903. Tolga captured the dramatic swoop of *Markarian's Chain* of galaxies in Virgo. Most are moving as a group except M84 and M86 (The Eyes) and M87 (elliptical in the corner).

Presentations: Two of Helder's images have been published in "101 Amazing Sights of the Night Sky: A Guided Tour for Beginners" by George Moromisato. Dennis gave a 4-week online AAVSO CHOICE course on exoplanet observing. I took it and learned a lot! On February 11 I spoke to the College Women's Club of Montclair on "Solar Systems Other Than Ours." Jim spoke on "Extreme Astronomy: Science from the Bottom of the World, Part 2 the South Pole" at Sperry on Friday February 24.

Other activities: Jim and Tolga tested a new guide camera (ZWO ASI174MM) to replace the ST-8 on the 24" telescope and found that it successfully avoided the annoying banding in some images. I pointed out a paper by Xu that found the first spectral evidence (nitrogen) for a Kuiper Belt Object falling into a white dwarf.

Respectfully submitted, Mary Lou West, Research Committee Chair

