

Research Committee report for April 2016

Despite the clouds there were some new imaging projects, and presentations were given at NEAF (North East Astronomy Forum) on some of our research projects.

Observations: Helder Jacinto imaged the first quarter Moon, especially the region of Rima Amadeus and the Sea of Tranquility. Tony Sharfman explored the limits of a 9 inch telescope with a very clear image of the craterlets within Crater Plato. Clif Ashcraft showed stark shadows of Lighthouse Point and the rim of Plato using his homemade atmospheric dispersion compensator.

Helder also imaged the Sun in H alpha, capturing Sunspot 2529 on April 10 and 14. He added an image of the Earth to show how large this spot really was.

Mars was the subject for Clif on April 4, 6, 14, 18, and 24. He tried the image centering and autoguiding features of Firecapture for the first time, and was very pleased with seeing the volcano Olympus Mons.

Jupiter was seen by Clif on April 14, 15 (GRS), 18, and 25, and also by Tony on 4/18.

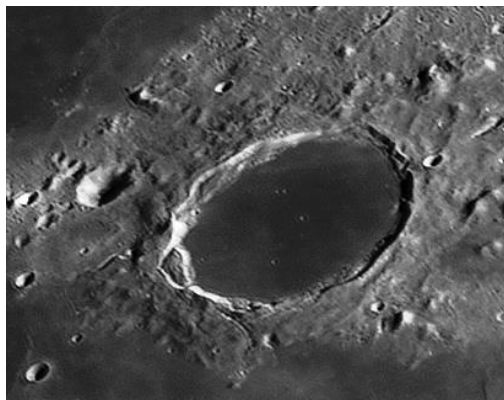
Saturn was imaged by Clif on April 14 and 24 and details are slowly getting clearer.

NGC 2403, a spiral galaxy 8 million light years away in Camelopardalis was imaged by Tolga Gumusayak in H alpha as well as LRGB over 14.7 hours. It has many red star forming H II regions.

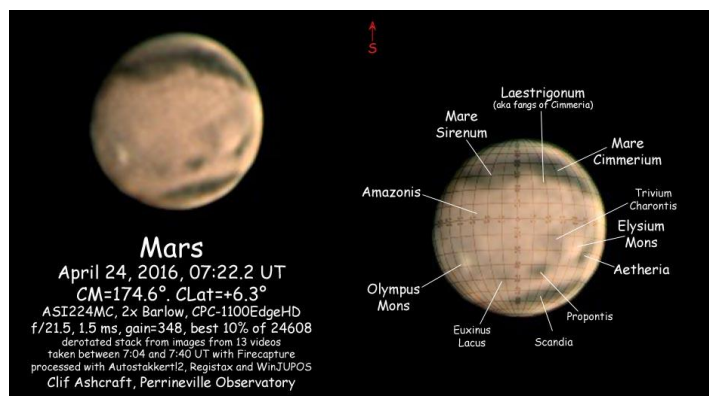
Other Activities: Our exoplanet transit data of HAT-P-3b was accepted for the global fit for the HST project, and Dennis Conti wrote a small article about AAI for the April AAVSO Newsletter. At NEAF Clif gave a Pro/Am presentation on speckle interferometry of close double stars, and our AAI Research poster was displayed in our club booth. Clif has provided guidance on matching the focal length of your telescope (with Barlow) with the pixels in an inexpensive digital video camera for planetary imaging with his spreadsheet "Digital Image Sampling.xls" using the Nyquist sampling formula. (Side note: Nyquist the horse won the Kentucky Derby.) We hope to collaborate soon with Westfield high school students interested in research experience.

See our webpage: www.asterism.org, Activities, Standing Committees, Research.

Respectfully submitted, Mary Lou West, Research Committee Chair



Crater Plato by Tony Sharfman



Olympus Mons on Mars by Clif Ashcraft