

Research Committee report for June 2015

June provides more comfortable temperatures for observing than the winter, but unfortunately, it doesn't get dark till late.

We have all been watching the stately approach of Venus and Jupiter in the evening sky this spring, and it finally culminated on June 30. Tony Sharfman and Helder Jacinto took images with Helder's being the most artistic. Jim Nordhausen and Clif Ashcraft imaged Jupiter and its moons and Great Red Spot (not so great anymore, as Clif reported at the May meeting).

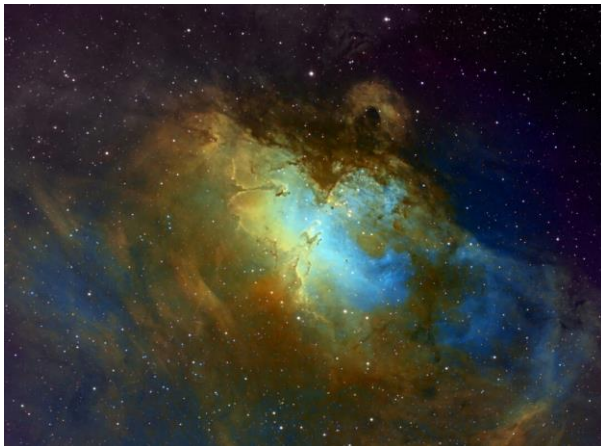
Clif made some mosaics of the Moon at various phases and showed sunrise on the Straight Wall.

Jim observed and Helder took images of the moderately quiet sun early in June. Toward the end of the month vigorous active region 2371 caused auroras seen by Jim's friend Roger Porter in Massachusetts, but by then it was cloudy in New Jersey.

The deep space image of the month is Tolga Gumusayak's M16, the Eagle Nebula (IC 4703). He took 15 hours of exposures with the narrow bandpass filters H alpha, [SII] and [OIII] on six nights in Verona. This is part of a diffuse gas emission nebula about 7000 light-years from us containing active star formation. A spire of gas that can be seen coming off the nebula in the northeastern part is approximately 9.5 light-years or about 90 trillion kilometers long. The young (2 million years old) star cluster has about 460 stars. The brightest one is hot spectral class O, has a mass of roughly 80 solar masses, and a luminosity of about 1 million times that of the Sun.

The new Pro-Am project with Cornell University is getting underway. Clif and Tolga plan to use the 24" at Sperry to monitor Saturn's moon Titan for increasing cloudiness using custom narrow bandpass infrared filters. Atmospheric models predict more cloudiness than is seen by the Cassini spacecraft's infrequent views of Titan.

The new ONAG XT CCD camera has arrived and is being tested.



M16 by Tolga



Jupiter and Venus by Helder

Respectfully submitted,

Mary Lou West, Research Committee Chair