

AAI Research Committee Report for September 2018

Hurricane season is upon us. Gordon and Florence have been particularly good at producing extensive clouds and rain.

Solar system: Clif Ashcraft continues his pursuit of imaging low altitude *Mars in infrared* and one shot color. His deep red IR filter allows the camera to see the planet's surface through the residual dust hanging in the atmosphere. In the upper left, Hellas Basin is quite bright, possibly due to water vapor clouds covering it. Syrtis Major is the dark central vertical feature. A portion of its right side is now pale and covered with dust because of the recent dust storm. It looks to me like Africa with Ethiopia, Kenya and Tanzania removed.

Stars: Jack Cleeve continues his project of photometry of several roAp variable stars with Steve Lowe and me, while Steve takes their spectra.

Presentations: Jim Nordhausen pointed out that the paper "The KELT Follow-Up Network and Transit False Positive Catalog: Pre-vetted False Positives for TESS" by Karen Collins, et al has finally passed peer review and was accepted for publication by the *Astronomical Journal*. It was only provisional in March when we announced that the co-authors included five AAI members: Jim Nordhausen, Clif Ashcraft, Dennis Conti, Tolga Gumusayak and me. It is now on <http://arxiv.org/abs/1803.01869>

Bob Vanderbei gave a talk on "Spectroscopy for the Amateur Astrophotographer" at AAAP in Princeton on September 11.

Mark Zdziarski, Jan Krakora, Ken Udani, and I described our "Summer Astronomy Adventures" at NJAG in Montclair on September 12.

I gave a talk on "Exoplanets" at UACNJ in Hope on September 8.

Other: Tolga Gumusayak reported on an article in an online photography magazine about *Deep Sky West* (How Two Friends Built a Remote Astrophotography Observatory in NM).

<https://petapixel.com/2018/09/01/how-two-friends-built-a-remote-astrophotography-observatory/>



He also imaged the *Little Sombrero galaxy (NGC 7814)*, disturbed galaxy M 110, spiral galaxy NGC 7331, and galaxy cluster NGC 7320.

Clif sent a plea for letters from Lowell Observatory staff which said that “sometimes it DOES take an Act of Congress” to fix things. They need to lift restrictions on road construction around their observatory in Coconino National Forest in Arizona. House Bill #6614 is now in the subcommittee on federal lands.



Clif also sent an informative PowerPoint on using the free software WinJUPOS to de-rotate planetary images. It was written by his Australian friend Stewart Beveridge.

Respectfully submitted, Mary Lou West, Research Chair