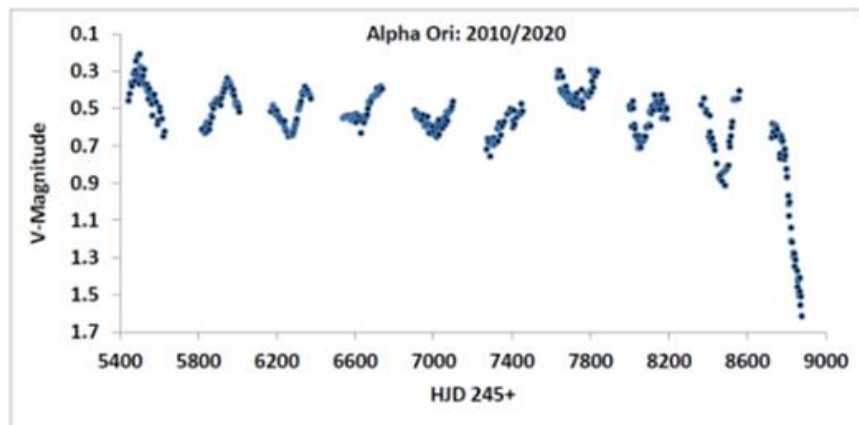


AAI Research Committee Report for January 2020

This has been an exciting month despite heavy cloud cover.

Awards: *Dennis Conti* has been honored with the 2020 Chambliss Amateur Achievement Award from the professional American Astronomical Society. He led the AAVSO division on exoplanets and enthusiastically taught people to observe transits of unseen planets across the faces of their distant stars and thereby verify their existence. He wrote an observer's manual and taught the AAVSO online CHOICE course on precise exoplanet photometric observing for several years. AAI members enjoyed taking this course and learned a lot. We are very proud of Dennis getting this prestigious and well-earned award.

Stars: Clif Ashcraft and Dale Gary reported that *Betelgeuse (Alpha Orionis)* has unexpectedly begun to fade, and is now well below its lowest brightness in 50 years. The most popular hypotheses concern variability run amok, or a cloud of dust drifting in front of the star from our point of view.



Nebulae: Helder Jacinto has used 16 hours to image the *Tadpole Nebula, IC 410*, in Auriga. He used three narrowband filters and then displayed the results in the Hubble palette, as bicolor, and also as RGB. The tadpoles in the upper right are dense clouds probably making stars and planets now. They are each about ten light years long.

Other: John Kozimbo pointed out the National Trust for Historic Preservation's history of Langley Research Center where the women in "Hidden Figures" did the mathematics to put John Glenn in orbit.

John also alerted us to a guided tour of the historic Schanck Observatory at the annual open house at the Rutgers Geology Museum on Jan 25.



Clif encouraged people to join the new project “Star Notes” at Zooniverse (<https://www.zooniverse.org/projects/projectphaedra/star-notes>). This project asks people to transcribe the groundbreaking work of early women astronomers such as Annie Jump Cannon and Henrietta Leavitt (“Pickering’s Harem”). Their 2500 notebooks were made at Harvard University in the early 1900’s and contain many references to the 500,000 Harvard glass plates of the sky. Zooniverse also lists another 17 astronomy projects for citizen scientists, so this might be a good way to do astronomy on a cloudy night.

Clif also sent Crux, an astronomical newsletter from Australia. It included an article on plans to refurbish the Great Melbourne Telescope of 1869, and another article describing the construction of a backyard observatory following Clif’s plans.

Mary Lou West pointed out that astronauts on the International Space Station have baked the first cookies in space, but didn’t get to taste them. The chocolate chip cookies were returned to Earth for quality control purposes. Sad.

Presentations: Aaron Zuckerman and Clif gave an informative presentation on “How to image the moon without howling at your equipment” on Friday, January 31.

Respectfully, Mary Lou West, Research Chair