

AAI Research Committee Report for October 2019

Solar System: Clif Ashcraft shared an image by Anthony Wesley in Australia that showed that Jupiter has a red streamer which appear to be accreting onto the Great Red Spot. Mr. Wesley has also seen the north polar hood on Uranus in infrared, something that only spacecraft could do a few decades ago.

Clif also pointed out that Alan Stern's New Horizons team has used approach images to construct a map of the other side of Pluto than their close-approach hemisphere seen in 2015.

Bobby Marinov pointed out that Saturn now has more known moons (82) than Jupiter (79). Twenty are new, far out and move in inclined orbits, and 17 of these orbit opposite to the direction of Saturn's spin. Dr Scott Sheppard found them using the Subaru telescope in Hawaii. You can suggest names from giants from Norse, Gallic or Inuit mythology, corresponding to the three different clusters of moons. Tweet suggestions to @SaturnLunacy and use hashtag #NameSaturnsMoons by December 6. Give reasons and artwork. See <https://carnegiescience.edu/NameSaturnsMoons> for details.

Nebulae: Tolga Gumusayak imaged the *Helix Nebula* in 28.8 hours. "The Helix nebula is one of only a few dead-star systems in which evidence for comet survivors has been found." (*Spitzer Space Telescope, false color IR*) This evidence is a tiny central disk of warm dust only about 5% of the size of the main ring. It is not visible in Tolga's image.



Bobby recently got his first GEM mount (Celestron GCX) and is having fun imaging the Pleiades and the *North American Nebula* (NGC 7000).

Other: On October 18 Bonnie Witzgall alerted us to the *first all-female spacewalk* about 8 AM. Christine Koch and Jessica Meir were outside the ISS for over seven hours and replaced a faulty battery charge/discharge unit. They were the 13th and 14th female spacewalkers and both are Girl Scout alums.

John Kozimbo pointed out a historical driving tour of NJ written in 1939. It included "The WILLIAM MOGEY & SONS,



INC. PLANT, 46 Interhaven Ave., North Plainfield (*open weekdays 8:30-5:30*), is one of the five factories manufacturing telescopes in the United States. In a squat, two-story cement building, William Mogey (who founded the business in 1882), his sons, and seven other men each year turn out about 200 complete telescopes, a large quantity of optical parts for rifle sights, and lenses for other goods.”

John also shared a current project by photographer Roland Miller who partnered with Italian astronaut Paolo Nespoli to document the International Space Station, with a focus on the station's lesser-seen interiors. The project gives longevity to a place designed to be temporary.

Respectfully submitted, Mary Lou West, Research Chair