West Jersey Astronomical Society

Meeting Minutes for: July 20, 2018

Web Address: http://wasociety.us

Location: Virtua Moorestown

Members in attendance: 13

Visitors: 2 (John and Alexa)

Officers present:

Pres.: Roger Cowley

Vice Pres.: Steve Kutoroff

Sec.: Paul Bender

President **Roger C** opened the meeting at 7:47PM. Tres. **Wade E** sent a note that Saturday's WAS paid-up-member picnic would start earlier than scheduled at 10:00AM, due to threatening weather later in afternoon.

Visitors **John** and **Alexa** reported that they have a 6" Celestron (Powermate) Reflector and are hoping to use it at a public star session.

S&T reports that part of the brightness of Mars is due (in part) to the extra reflectivity of the dust storm.

Roger asked what members have been observing recently.

Dave N said 2 weeks ago he viewed M16.

Joe S said that the recent Batsto star party was a good session, with many visitors treated to views of the milky way in Cygnus, the early crescent moon, Venus, Jupiter, Saturn, Antares and finally the brilliant red Mars peeking through Batsto's trees. **Joe** was able to catch a picture of the green comet c/2017 S3 (PANSTARRS) at Carranza Field on July 19th with a 200mm lens at f/3.5, 4 sec at ISO 6400; in the

constellation Camelopardalis.

Pics of Venus separated 2.44° from the early crescent moon on July 15, taken by **Joe S**, **Jimmy M**, **Bernie K**, and **Paul B** were put on screen by **Steve K**. **Joe S** also displayed his impressive shot of the crescent Moon in three-quarters earthshine passing, 4 arc minutes from Aldebaran with a 150 to 600mm zoom lens at 600 mm, f/6.3, ISO 3200, for 0.8 sec, on July 10 at 4:25AM.

Dave N showed his nice shots of Jupiter, achieved despite presence of cumulus clouds. He stacked 1000 of the 5000 frames taken shooting at 80 fps. His conclusion: it could use a lot more frames; but relative to what we have been seeing lately with the changes on Jupiter, his results were pretty darn good.

Alan D reported no sun spots over past 3 weeks.

Arthur (new member) researched questions of planetary features on Jupiter and the dust storm on Mars brought up at the July 6 meeting. Jupiter's belts are revealed by Juno's instruments as 2000 mile deep jet streams, and the GRS penetrates as deep as instruments can detect. Juno's onboard instruments included: gravity science instrumentation, a magnetometer to map magnetic and gravitational fields, a microwave radiometer to reveal water and ammonia concentrations, an energeric particle detector, an auroral distribution experiment, a uv spectrograph, an ir camera, and a visible light camera. Juno revealed a magnetic field generated by an ocean of liquid metallic Hydrogen, as well as other materials near outer surface of the planet. There is both water rain and helium rain. Both north and south poles have cyclonic storms rotating around a central one, 8 northern and 5 southern. **Arthur** generated 4 hyperlinks on recent Jupiter studies (related to the ongoing Juno mission; most impressive was the excellent YouTube 1hr 35min summary of results and a question session by Juno scientist Steve Levin, www.youtube.com/watch?v=56Joupv6f-M (link not working); Two of the four other Juno links are no longer available and there are another five links on the Martian dust storms. (hotlinks on next page). **Arthur** also had **Steve K** display a schematic comparison of the air flow circulation patterns on Venus, Earth, and Mars emphasizing the similarities and differences.

Jupiter – Juno:

https://www.nasa.gov/feature/ipl/nasa-iuno-findings-iupiter-s-jet-streams-areunearthly (link not working)

https://www.youtube.com/watch?v=S6Joupv6f-M

https://www.missioniuno.swri.edu/junocam/processing (link not working)

https://www.missionjuno.swri.edu/

Mars – dust storm:

https://mars.nasa.gov/news/8350/nasa-encounters-the-perfect-storm-for-science/

https://mars.nasa.gov/news/8351/curiosity-captures-photos-of-thickening-dust/

https://mars.nasa.gov/resources/21918/curiositys-view-of-the-iune-2018-dust-storm/

https://mars.nasa.gov/news/8354/storm-chasers-on-mars-searching-for-dusty-secrets/

https://mars.nasa.gov/

Pres **Roger Cowley** closed the meeting at 9:39PM.

Submitted by Sec **Paul Bender** on August 13, 2018.