

Rappahannock Astronomy Club

Minutes, January 18, 2017, Meeting

In attendance:

Karla Aquino
Bart & Linda Billard
Don Clark
Gary Forjan
Glenn Holliday
Scott Lansdale
Payal Patel

Hazel Pengson
Bobby Powell
Tim Plunkett
Ryan Rapoza
Mark Remick
Tom Watson
Rich Westerlund

The meeting began a little after 7 p.m. Nine members and six visitors were present. Because of the additional time needed for the telescope workshop scheduled, we skipped the regular business meeting at the end of the program. Tim Plunkett's emailed Treasurer's report is summarized below.

Program

Club members brought telescopes for a special workshop, "All About Telescopes." They provided discussions of the telescope types and answered questions. Bart Billard described his Dobsonian reflector, which allowed him to pay more for the telescope optics by paying less for the "mount" that held the telescope and allowed it to be pointed. It was easy to set up but required manual tracking, and the user had to get used to how much it had to be nudged up or down, in addition to clockwise nudging, to keep objects in view. One question was about maintenance. Bart said the main thing was "collimation:" making sure the main mirror was not tilted. Cleaning the mirror should be rarely necessary.

Tom Watson talked about refractor telescopes and illustrated with his 80-mm aperture achromatic refractor. He explained that lenses tended to focus different colors by different amounts, and achromatic lenses were designed to compensate somewhat with a two-part lens made of different kinds of glass. The result was reasonably good, but could have halos of color around bright objects. More complicated (and expensive) apochromatic refractors more or less eliminated the halos.

Glenn Holliday showed another reflector telescope with an equatorial mount. This type of mount allowed the telescope to be aligned so that adjusting for Earth's rotation was simpler than the combination of nudges needed with the Dobsonian mount. One could simply turn a single knob to keep a target from drifting out of view for long periods of observation.

Ryan Rapoza and Scott Lansdale with assistance from Glenn, showed three examples of Cassegrain telescopes. Ryan had a Celestron NexStar 8SE with a go-to mount. He said it only required centering on three bright stars to align it so it could find thousands of objects visible in the sky. It had a "corrector" plate at the front, a mirror with a hole in the center at the back, and a secondary mirror in the middle of the corrector plate that sent the light back through the hole instead of out to the side like a reflector. Bart suggested the corrector could be viewed a lens for "tweaking" the performance of the mirrors to get better images. The Maksutov-Cassegrain also had a corrector that used a different shape (spherical) for the same purpose. The Ritchey-Chrétien telescope that Scott showed worked without a corrector. Instead, it had specially shaped mirrors to get the improvement a corrector would provide.

Old Business

- Treasurer's Report—Tim's emailed report for December 31, 2016, was included in the agenda prepared for the business meeting that we did not actually hold. It did not include any changes from November. The number of paid memberships for 2016 and 2017 remained at 27 and 10, respectively.

Next Meeting

The next meeting is on Wednesday, February 15, 2017, at the Central Rappahannock Heritage Center.