

Rappahannock Astronomy Club

Minutes, September 18, 2019, Meeting

In attendance:

Jean Benson
Bart and Linda Billard
Scott Busby
John Duran
Glenn Faini

Glenn Holliday
Jerry Hubbell
Andrew Kovak
Tim Plunkett
Matt Scott

The meeting began at about 7:05 p.m. after introductions. Ten members as well as a visitor were present.

Program

Scott Busby conducted an interactive program entitled "Vintage Astronomy Book Collecting." He had brought in a number of astronomy books he had collected and had them in two groups. One group contained a facsimile edition of the book *Mars*, by Percival Lowell. Scott said he was leaving that group on the table for people to look at during the meeting. He passed out the second set of books and said he would have each person with one of the books read the title, author, and publication date, and then read the bookmarked passage (or passages).

Scott called on Matt Scott first. Matt had *History and Work of Harvard Observatory* by Solon I. Bailey, published in 1931. He read a passage about an 1871 study of the surface of the Moon with the large refractor. The observer, studying the lunar surface from the standpoint of a geologist, concluded that the contours were the result of volcanic action and that the radiating bands were crevasses stained by escaping gases. The author concluded that similar views were held by many selenographers, but the origins of the lunar markings were still in doubt. We discussed how puzzling that seems now.

Jean Benson had *First Observations in Astronomy* by Mary E. Byrd (1913). She read a passage about how to see the Milky Way that included advice to write down data to look for changes. It also had the author's notes from an observation from Goshen, Massachusetts. Scott said Mary Byrd established an observatory on Nantucket. Glenn Faini wondered about the darkness of the sky for her observation, and Linda said Goshen was in western Massachusetts, which would have been pretty dark.

Scott picked Rolando Pancotti next. Rolando had *Our Sun* by Donald H. Menzel (1949). One passage was a description of prominences. Scott said at the time the book was published, traveling to view total eclipses was pretty much the only way to view prominences. Another passage was a discussion of ions, including how doubly ionized magnesium was similar to sodium. Scott said this discussion gets into spectroscopy. Astronomers were unable to find singly ionized helium until discovering it in the corona made them appreciate the high temperature required to get it.

Jerry Hubbell read a passage from *The Adolfo Stahl Lectures in Astronomy* (1919). His passage was a discussion of the lack of the expected number of impact craters that appeared to be the result of glancing blows (i.e., not circular). We discussed the current consensus about an early period of heavy bombardment of the planets in the solar system, and Scott mentioned how he thought of Saturn with its rings as an analog of the early solar system. Jerry brought up how the current understanding that because of the energy released in impacts, even an angle as low as 20 degrees can create a circular crater.

Linda Billard was next with *The New Astronomy* by Samuel Pierpont Langley (1888). Her passage concerned comets' appearance and their apparent speed too high to be explained by the Sun's gravity. It also indicated their inclination to the ecliptic was not well understood. Scott talked about frequently viewing images of comets passing close to the Sun taken by SOHO, including ones that don't survive their closest approach and one that had its tail blown away by the solar wind.

Tim Plunkett had Fred L. Whipple's *Earth, Moon, and Planets*, published in 1941. One passage he read described the different types of tides and their interaction. Another was a discussion of rays on the Moon.

They were still unexplained in 1941, and the passage noted they do not cast shadows, asking whether they could be emissions from cracks. Tim read a third passage on the naming of Pluto. It compared predictions of the orbit and mass made by Lowell and Pickering. We learned that 1919 plates caught Pluto without leading to its discovery. In one, Pluto fell on an emulsion defect, and in another, it was too close to a star. Scott pointed out Whipple does not even mention Clyde Tombaugh.

In closing, Scott said he would often go back to a book covering something he is observing to see whether anything had changed. He and Myron tried comparing an old image of a galaxy they were observing with one they made. Blinking the images revealed some stars with detectable proper motion.

Old Business

- Treasurer's Report—Tim's report showed two dues payments received and two checks paid in August, for a net expenditure of \$284.93. The total count of members for the year reached 48.
- Vice President's Event Report—Glenn Holliday said the August picnic and star party were well-attended. He said the next Caledon date was September 21. Jerry asked about an email he had sent about a star party enquiry. Scott said September 28 could be a backup star party date at Belmont. Glenn H. reminded us that Caledon moved our October star party to Friday, the 25th. He said Caledon invited us to have a booth at the Saturday event, but he had not heard anyone express an interest in participating. Glenn Faini said he would be interested and would email Caledon. Glenn H. said that in November we had Stratford Hall on the 16th and Caledon on the 23rd. He brought up scheduling for 2020, saying club attendance at star parties had been decreasing, while we had an increasing number of guests. He wanted us to consider whether we still wanted to do star parties. Scott pointed out our special relationship with Caledon that we might not want to damage. Glenn F. suggested possibly having events at both Caledon and Belmont to allow members to choose the closer site. Glenn H. said he would work on a schedule to suggest at the next meeting.
- Secretary's Report—Bart Billard said he was ready to post the August minutes on the club website.
- *StarGazer* Report—Linda Billard said it was still early to worry about articles for the next issue, although she had some lined up.
- Mark Slade Remote Observatory (MSRO) update—Jerry Hubbell said MSRO was incorporated July 23, and a checking account was set up August 23. Email was now up and running and work on a website was under way. The new name was MSRO Science, Inc. Applying for 501(c) 3 status would allow tax deductions for donations and applications for grants. The next board meeting was scheduled for November 15. The board was working on the bylaws. Jerry said the equipment was operational and that he had a team working on training to participate in the Transiting Exoplanet Survey Satellite Follow-up Program (TESS XOFOP). EXOFOP participants work on observations to discriminate sources of planet-like signals picked up by TESS.
- Communications Committee Report—Scott Busby had nothing to report on the club Yahoo group.
- Club Equipment Inventory—Scott B. reported that Curtis Martin still had the 6-inch Dobsonian, which was the only equipment currently out.

New Business

- Bank Account Signatures—Glenn F. said he and Tim were going to the club's bank to update signature authority on the account. Tim said he goes to the Carter Bank and Trust branch on Bragg road. They agreed on a meeting time of 11 a.m. Saturday (an hour before closing). Tim also said he found they would need to verify email addresses in person to get online statements working.
- Officer Nominations Due October 16—Glenn F. said officer nominations were to be made at the October meeting. He said he would send out an email to members and send the agenda to help drum up interest in attending.
- VAAS 2019 in Centreville on October 5—Glenn F. said he would be unable to attend but hoped another member could attend to represent the club.
- Upcoming Events—Glenn Holliday went over the schedule. The next star party at Caledon was scheduled for September 21. The VAAS was October 5, which was also the date for a Meet the Moon night at Porter Library (contact David Abbou). The October star party at Caledon was moved to Friday, October 25. November 16 was the date for a Stratford Hall outreach.

- Programs for Coming Meetings—Glenn H. said he had volunteered to do a program for December, probably based on one of his unused Caledon programs. Glenn F. said he thought he could do the October program. However, Glenn H. said that Tom Watson was already scheduled to do an October program.
- Wrap-up Items— Jerry suggested that if the club wanted to develop a program that needed donations for funding, it could be a reason to seek nonprofit status. He said club dues are more of a quid-pro-quo payment and would not be tax deductible. Nonprofit status would be unnecessary if dues were sufficient for club activities. Jerry, Glenn F., and Glenn H. talked about starting a discussion on 501(c) 3 status for the club. Tim said he was ready to participate in the discussion, if needed. There was a suggestion to start by working on a poll of members, which would also ask about interest in star parties and club meetings. Glenn F. said he was thinking about the Yahoo group and trying to determine which members were not receiving club emails. Another topic discussed was prorating dues for new members joining later in the year, which is in the Bylaws but was not being followed. One question was what month to start applying new member dues payment to the coming year. Tim said he figured it would apply to the next year if they missed the picnic. We found that the Bylaws said that the dues for new members were prorated according to the number of months remaining, so new members only pay the full amount in January.

Next Meeting

The next meeting is on Wednesday, October 16, 2019, at the Headquarters Library on Caroline Street, downtown Fredericksburg. We will be in room L2, downstairs near the elevator. Officer nominations for next year are due at the October meeting.