

# Rappahannock Astronomy Club

## Minutes, December 18, 2019, Meeting

In attendance:

Jean Benson  
Bart and Linda Billard  
Scott Busby  
Don Clark  
Glenn Faini

Jerry Hubbell  
Tim Plunkett  
Matt Scott  
Myron Wasiuta

The meeting began about 7:05 p.m. Ten members were present.

## Program

Myron Wasiuta presented “Adventures in Skycam Imaging.” He said the MSRO skycam had been imaging the sky on clear nights starting in May. The first version was mounted on the observatory structure and was put together using a monochrome guiding camera in a plastic electric junction box with Plexiglas on the imaging end and a feed through for USB on the back end. The current version is on the MSRO StationTwo shelter structure with the guiding camera replaced by a low-light security camera. Myron noted the cost was about \$300 for the camera and \$16 for the enclosure, compared with about \$1,000 for a commercial version. He said club members could get the TeamViewer login from him to watch images from home.

Myron also mentioned a StationThree telescope was recently added and was available for training. Beginners interested in learning to operate remote telescopes from home would find StationThree much easier, and he thought the cost should be lower. It uses the monochrome QHY5L-II camera that was on the StationOne structure as the first skycam. The StationThree telescope mount is being used for testing for Explore Scientific as a possible mount upgrade product.

The skycam runs on every clear night, and raw data are kept for a couple of months. It takes one image every 30 seconds. Myron said the last clear night prior to the meeting was December 15. He said he reviews what was recorded each night and saves interesting images to folders with labels like “biological transients,” “meteors,” “artificial satellites,” “unidentified,” and “cosmic ray hits.”

Myron showed a recent bolide from early November. He confirmed he could judge the start and end of the trail from the image and said he reported it to the American Meteor Society ([event 5564-2019](#)), which could help them predict where it might have reached the ground. He also showed a cosmic ray hit and how varied color pixels were excited. He thought another optical transient image he showed us was probably a satellite flare.

Myron next showed images from the “biological transients” folder. These were firefly trails, and he pointed out interesting variations that showed up during the season. The early images showed “segmented trails” with two to nine flashes. They started brighter and ended dimmer and shorter, suggesting “running out of charge.” Some were straight and some were curved. Myron said the fireflies did not fly in rain but came out quickly after rain ended. A little later in the season, the trails became continuous, after a mix of segmented and continuous trails near the end of May. He said he learned the continuous trails were made by a different species. Myron showed images from early June with fewer segmented and more continuous trails. He pointed out flashes that could be seen in the trees, and that the trails in the air pointed toward the trees. There were still more continuous trails after mid-June, and a little later, we saw dog legs, or “looping J” trails. As another example of a “biological,” Myron showed an image with a spider on the enclosure window.

At the end, Myron showed some very cool lightning images taken at very low gain once every 3 seconds. One pair of images apparently caught the same lightning overlapping the two exposures. The first image could be the leader, and the second could be the full stroke. He also showed a time-lapse video of the January 21, 2019, lunar eclipse, “[The night of the Cuba Moon Eclipse](#),” which is posted on YouTube.

## Old Business

- Treasurer's Report—Tim Plunkett's report showed two dues payments of \$20 and an expenditure of \$46.99. We discussed the need to change the membership application and the club website to reflect the change of Treasurer from Tim to Matt Scott. One suggestion was to use a P.O. box if the address would be written on the checks, but Matt thought a box might cost \$160 a year. He added he could check because there might be a smaller size that would be more affordable. Glenn Faini asked what it would take to set up a PayPal option on the club website. Jerry Hubbell said PayPal makes it easy if RAC sets up a club PayPal account. Tim thought 10 or 12 payments might have been made by mail this year (in the absence of a PayPal option). Glenn F. suggested that we should eliminate prorated dues by letting new members get the next year included if joining in October, November, or December. Don Clark said he would try to set up something for us to consider at the next meeting.
- Vice President's Event Report—Glenn Holliday was not at the meeting to give the report, but Glenn F. was able to report Caledon was rained out.
- Secretary's Report—Bart Billard said he had posted the November minutes on the club website, after sending them to the Executive Council first for comments.
- *StarGazer* Report—Linda Billard checked with Scott Busby and Myron for upcoming contributions. Scott said he might be busy through January. Linda said she got a number of favorable comments about Lauren Lennon's article in the latest newsletter.
- Mark Slade Remote Observatory (MSRO) update—Myron said he did not have a lot of activity to report. He encouraged members to contact him and try out the new StationThree. He mentioned he was ready to "take the trash can off of it," referring to the shelter he had devised for the telescope and mount. Glenn F. offered a motion that before the January meeting, the club send MSRO a check for the \$200 in extra dues collected this year to support MSRO. Linda seconded, and the motion passed without discussion or opposition.
- Communications Committee Report—Don Clark said he was switching to the Night Sky Network (NSN) Calendar from the Google Calendar, adding it would make it easier to report outreach events to NSN (and earn outreach kits from NSN). He asked Scott whether to include Belmont events falling on the same date as Caledon star parties, and Scott agreed. Don said he also planned to work on simplifying the website with the new WordPress theme now available.
- Club Yahoo Group—Scott said he thought he would now have to send an invitation for a new member to join the Yahoo group. Glenn F. said he was sending new members an email giving information about the club and an invitation to join the Yahoo group. Some thought Yahoo might even phase out email support over the next couple of years.
- Club Equipment Inventory—Scott reported another donation received the weekend before the meeting from a person who contacted him through David Abbou. It was a Meade 90-mm achromat. It included a tripod in bad shape, but Scott said it had parts he was able to use to get another tripod he had working. The rings do not fit the telescope, and it needs a mount. Scott said he was now rethinking posting of the equipment list, and wanted suggestions on where to post it. He said he had in mind something compact just listing types of equipment. He would then help pick the level suitable for the requestor. He suggested the list might simply be in a box appearing in each newsletter, or maybe in a Google page. Don said he would set up something to show Scott. Scott also mentioned the recent email about an 8-inch SCT and a Solar Max for sale.

## New Business

- Confirmation of 2020 Executive Council Appointments—Glenn F. offered the following motion: "I move that the Rappahannock Astronomy Club approve my nominations of:
  - Linda Billard - *StarGazer* Editor
  - Don Clark - WebMaster/Domain Administrator
  - Scott Busby - Yahoo!Groups Administrator/Equipment Manager
  - Jerry Hubbell - MSRO Science, Inc. Assistant Directoras Members at Large for CY 2020." Scott seconded the motion, and it passed with none opposed.
- Scott mentioned having volunteered to give a presentation for a Women of Lake Anna event planned for January 8. He said he had misplaced the email address he needed to request a

confirmation the event was still planned as scheduled and asked whether someone else had it and could send it to him.

- Membership Survey Results—Glenn F. said no one cared about our Twitter account and asked whether we needed to get rid of it. Jerry recommended emailing Tom Watson and Payal Patel to ask their opinions on closing the account.
- Glenn Faini asked members whether they had any suggestions for changes in how he ran meetings for next year. He asked, for example, whether he should show the agenda on screen and whether to continue to start the meeting with the presentation. The consensus in the room for starting with the presentation was “yes.”

## **Next Meeting**

The next meeting is on Wednesday, January 15, 2020, at the Headquarters Library on Caroline Street, downtown Fredericksburg. We will be in room L2, downstairs near the elevator.