

Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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www.cvas-utahskies.org

Meeting Announcement

There is no general meeting this month.

Starting in September, our monthly meetings will be held in the Bonneville Room of the Logan City Library

CVAS Leadership Elections will be held September 25th at our monthly meeting. See Dells article for more information.

Upcoming Star Parties

August 2 – Beaver Mountain Parking Lot
August 6 – Providence Library
August 9 – Logan City Library
August 30 – Location TBD

The President's Corner By Dell Vance, CVAS President



July was a great month for observing. We had several nights that were outstanding. We have also had some great events since our last Newsletter.

- On Jun 28th we held a star party for the 11 year-old Scouts for the Nibley Stakes up at Cinnamon Creek Campground. The sky was

gorgeous, and the boys / leaders were impressed.

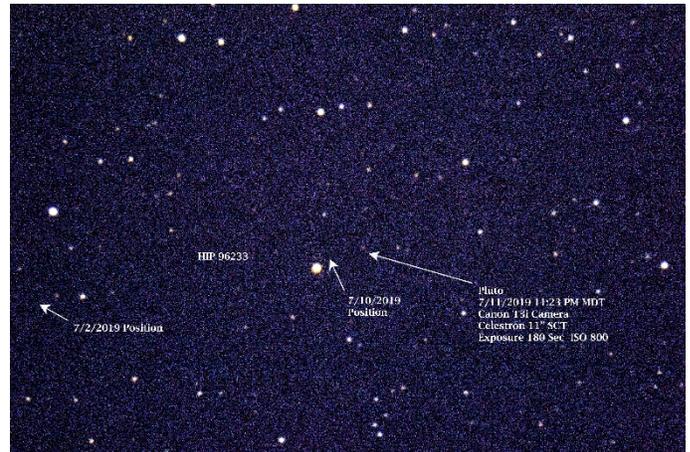
- On June 29th we had two events going the scheduled star party at Bruce Horrocks' new observatory and a last-minute request by Nibley for a Star Party as part of their fire-fly festival. Tom and Wendell attended the fire-fly festival and had many people that enjoyed the stars that night with them. Bruce's new observatory was also well attended. His observatory is very impressive.
- On July 9 we placed a Library Loaner Telescope in the Lewiston Library. This was donated by Schreiber Foods.
- On July 19th we had a Star Party in Newton for the Newton Library. It was very well attended. We had about 74 people there and six telescopes that CVAS Members brought.
- On July 24th we participated in the North Logan Pioneer Days by manning a booth. The clouds were a real challenge for us, but we had a good representation there as well.

We have been able to work with the Logan Library to reserve the Bonneville Room for the 4th Wednesday of each month for the coming school year. This is a great opportunity for us. Our monthly meetings will be held there instead of the Bridgerland Technical College. Be sure to get the word out to your family and friends of the change.

I tried something new this month. I wanted to see if I could get an image of Pluto. I knew that it would not be very big or bright (14th Magnitude), but if Clyde Tombaugh could find it on his photo's, then I should be able to as well. My task was easier, because my telescope knows where to look. I imaged the area three different nights and then compared them to see what object was moving around. Sure enough, there it was. It gave me a real appreciation for what Mr. Tombaugh went through. He spent about a year doing the same thing with much less sophisticated equipment. I

would recommend this exercise to anyone that likes a challenge.

Here is the final picture and I have identified where Pluto was on the photo of the previous nights.



In August we already have three Star Parties lined up.

- August 2nd Beaver Mountain overflow parking lot – this is a great dark sky site we will be setting up at about 8:30 PM
- August 6th at the Braegger Park at 300 South 300 East, Providence setting up at 8:30 PM and going to 10:15 PM
- August 9th at the Logan Library setting up at 8:30 PM.

It is time to start getting ready for the elections of club leaders in September. I have served for 4 years as president now and will step down in September. Bradley Kropp is also stepping down from the Treasurer's position. Wendell Waters will run for Secretary again and Bruce Horrocks will run for President. Like last year, I want to assure anyone that is interested in running for one of the positions that they are not very time consuming or difficult to serve in. The Executive Committee (Excom) meets one night a month for about an hour to plan programs and star parties. With five people

on the Excom we usually have a lot of input on the items considered. The Elected positions are:

President: Chairs the committee and sets up the Excom meeting. He/She will also conduct the monthly meeting during the Fall/Winter months and writes a column for the Newsletter. Additional time spent each month including Excom Meeting: about 4 hours.

Vice-President: Conducts meetings when President is not available. (This doesn't happen very often.) He/She may also take assignments when needed by the Excom and provides important input at the Excom Meeting. Additional time spent each month including Excom Meeting: about 1 ½ Hours.

Secretary: Keeps the minutes of meetings, is the editor of the Newsletter, and any special assignments that the Excom may have: Additional time spent each month including Excom Meeting: about 5-6 hours.

Treasurer: Collects membership dues, writes checks for expenses, and reports monthly the status of membership and financial activities each month at the Excom Meeting. Additional time spent each month including Excom Meeting: about 2 hours.

Time spent doing the leadership responsibilities may vary depending on how much effort and innovation that you apply to the tasks. As you can see, the time requirements can be minimal. I hope each member will take an active role in the leadership of the club at some time during their membership. The turn-over of members for the Excom can provide a good mix of ideas and opportunities. In addition, the past President also attends the Excom Meeting to

provide continuity and coaching to the committee. **If you are interested in serving in one of the Excom position, be sure to let one of the current members of the Excom know so that we can get you on the ballots.**

Be sure to get out and do some observing. The skies are getting much better and it will start to get dark sooner. Thanks again for your great support.

Clear Skies!

CVAS Member Photo



Photo by Sharrel Eames

This photo was taken with my cell phone, in my pajamas when I went out to pick up the newspaper on July 20, 2019. The moon, the flag, and "Houston, Tranquility Base here. . ." in perfect harmony illustrate all that was important to me on that day 50 years ago.

Imaging set up using the Celestron Program CPWI

By Blaine Dickey

Below is a picture of an imaging setup in my backyard using the free program named CPWI from Celestron. The CPWI program allows most Celestron Telescopes to be controlled from a laptop. It allows the user to sync the scope with the sky, pick objects to look at, and shows a star map and list of objects you can select using a mouse click to automatically slew to the desired celestial object.



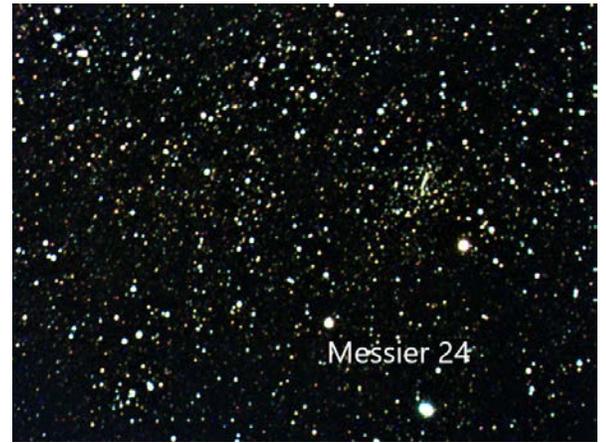
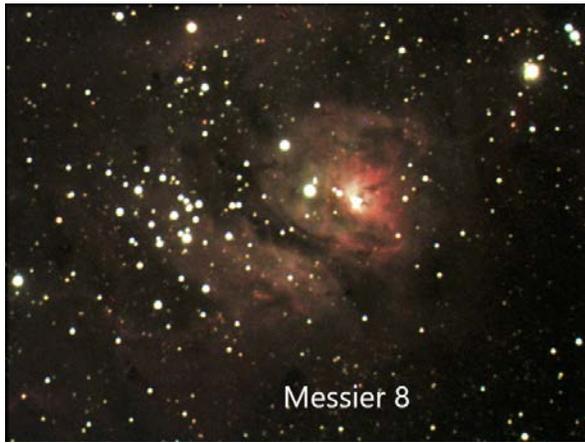
The equipment shown includes a Mallincam SkyRaider DS287/c camera with a 0.5x focal reducer screwed onto the 1 1/4" tube on the end of the camera, and a Meade F/6.3 focal reducer screwed onto the rear cell of my 6 inch Evolution Celestron Scope. This set up gives a nice wide field of view.

The camera cable plugs into a USB port on my laptop which allows the use of a program that controls all of the functions of the camera from the laptop. A second cable connects to the bottom of the Celestron hand controller to a USB hub attached to my laptop. It controls all the functions of the telescope using the CPWI program. You can also use the CPWI program without a camera.

On Friday June 28th I decided to give this set up a trial run. The CPWI program first asks for your location and then asks you to connect to your scope via a hand controller option. After you are connected it asks you to level your scope tube and point it to the northern horizon (it doesn't have to be perfect). It will then ask you to select a star from a list of bright stars that are located in different parts of the sky. After I selected a star I pressed the goto button and the scope slewed closely to the star I chose. Using the mouse and a set of arrows on the screen I centered the star in my finder scope until it also appeared on my laptop window screen of the Mallincam software used to control the camera. After centering the star on the screen crosshairs I synced the first star. Next it asks you to choose a second star to sync to. A special window on the screen has large buttons that turn green after each star is synced. Sometimes it tells you to select a star in a different segment of the sky. When all the circles turn green, your sync is then complete and accurate.

The first object I selected was M57. It appeared near the center of the field of view. I could see it easily even though it was not yet dark. Continuing after the sky darkened I imaged 15 other objects. The sky was extraordinary that night with the Milky Way visible over most of the sky except towards Logan.

The program works well and allows you to slew to many types of objects that you want to observe or image. The images came out pretty good even without any auto guiding. The Mallincam program stacks the images on the fly and aligns them even if the tracking is not great. My plans are to bring it to a star party to let others see some of the deep sky objects in color. If you own a Celestron scope you may want to give it a try. Below is a sample of the images that were taken on that evening.



CVAS on Utah Public Radio

Listen to CVAS on Utah Public Radio each Tuesday at 4:48 pm. Blaine Dickey and Tom Westre are writing weekly astronomy related scripts and recording the program at their station. We are pleased that the folks at UPR have invited us to present a weekly topic on astronomy. You can listen in Logan on 91.5 KUSU-FM, or 89.5 KUSR Logan, with translators 92.1 Brigham City, 89.3 Bear Lake. There are other translators from Soda Springs to St George. You can also listen anywhere on their live stream or download UPR's free app on your smartphone. Check this out at www.upr.org.

CVAS Loaner Telescope

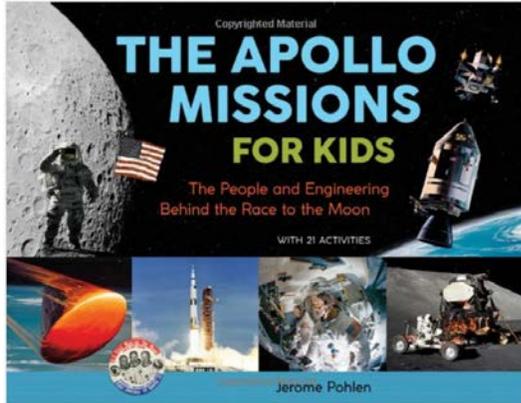
CVAS provides a 10 inch Dobsonian telescope to club members. Contact Garrett Smith to make arrangements to use this telescope. Garrett can be contacted by email at GarrettGillSmith@gmail.com.



Kidstronomy Corner

By Bonnie Schenk-Darrington

Hello, all! I hope you had a great month stargazing and celebrating the 50th anniversary of the moon landing.



[Pohlen, Jerome. 2019. *The Apollo Missions for Kids: The People and Engineering behind the Race to the Moon. With 21 Activities.* Chicago: Chicago Review Press.](#)

Ages 9 and up (Grade levels 4 – 6) 160 pages

\$12.78 on Amazon.com



(3 1/2 out of 5 planets)

Because of the moon landing anniversary, I've been concentrating on books about the moon lately. Last month, I reviewed a book about humankind's future on the moon: *Space Case*, a middle-grade sci-fi mystery that takes place on the fictional first moon base in the 2040s. This month, I thought it made sense to review a book about humankind's past—and all the effort it took to get us to the moon that first time in the 1960s.

The reason I chose this particular book was because it came with suggested activities to go along with the story. And I wasn't disappointed. The activities beautifully illustrate the challenges and physics of space travel. For example, there is an activity demonstrating how and why sheets of ice often fall off rockets as they launch (p. 40); one demonstrating the size of the lunar command module (p. 45); and one demonstrating the thinness

of the aluminum walls of the lunar lander. If your child is more artsy and less sciencey, this book has something for him or her, too! You can design a lunar mission patch (p. 51); or check out some 3-D moon rock images (p. 109), for example. I can't overemphasize how pleased I was with the activities in this book. If you've read my column much, you know I like to find books with good science activities, and this book contained only one activity I had ever seen before—making moonlike craters in flour and cocoa powder (p. 132). And that one's an oldie but goodie! The activities complimented the text; I never found myself wondering, "Why the heck did the author include this activity?"

Another strength of the book is that it documents the human stories of the space race. Ample quotes explain the feelings experienced by the astronauts, engineers, contractors, support teams, American and Russian peoples, and so on. For example, of the Apollo I tragedy (in which the capsule and astronauts burned up in a simulated launch), Soviet cosmonauts sent the condolence: "The death of these brave conquerors of space not only shocked the American people but caused deep pain in our hearts as well" (pp. 36 – 37).

The book also has great sidebars. My three favorites are about Katherine Johnson, the African-American mathematician whose calculations Neil Armstrong refused to fly without (p. 10); about *Star Trek* and the connection of actress Nichelle Nichols to NASA (p. 42); and about Margaret Hamilton, an MIT software engineer whose innovative code saved the *Eagle* from crashing on the moon (p. 79).

Which brings us to the book's major weakness: This book is the story of white men. The women in this book are overwhelmingly wives, nurses, secretaries. The only mentions of people of color are the brief text introducing Nichelle Nichols and Katherine Johnson. And they—and Margaret Hamilton, whose code prevented a serious accident with the Apollo 11 lander—are relegated to sidebars. It's not that diverse personnel didn't exist at NASA in the 1960s—it's that we're only now

documenting their stories. (For two great news articles documenting this very issue, please see the articles listed at the end of this column.) But the moon landing was their story, too.

I think that the suggested age range for this book is a little low. My 9-year-old really struggled to cope with it and ultimately just took a quick look through it and put it down. I think an 11- or 12-year-old with a basic science background would understand it just fine, and not be intimidated by the engineering vocabulary.

But the activities are, for the most part, accessible for kids even as young as 6 or 7. And the illustrations are top-notch, and include not only photographs but illustrations from NASA training manuals and pictures of each mission patch. The text is lively and engaging.

3 1/2 out of 5 planets. I would have given it 4 1/2 out of 5, but the diversity issue just really dragged the book down for me.

More reading on women and people of color in the U.S. space program:

Kowal, Mary Robinette. 2019. "To Make It to the Moon, Women Have to Escape Earth's Gender Bias." *New York Times*, July 17, <https://www.nytimes.com/2019/07/17/science/women-astronauts-nasa.html>.

Ludolph, Emily. 2019. "Ed Dwight Was Set to Be the First Black Astronaut. Here's Why That Never Happened." *New York Times*, July 16, <https://www.nytimes.com/2019/07/16/us/ed-dwight-was-set-to-be-the-first-black-astronaut-heres-why-that-never-happened.html>.

Upcoming Events and Anniversaries

- Aug 01 - [Alpha Capricornids Meteor Shower](#) Peak
- Aug 01 - [Yury Romanenko's](#) 75th Birthday (1944)
- Aug 03-08 - [Small Satellite Conference: Small Satellites - Big Data](#), Logan, Utah
- Aug 05 - 50th Anniversary (1969), [Mariner 7](#) Mars Flyby
- Aug 06 - [Southern Iota Aquarids Meteor Shower](#) Peak
- Aug 09 - [Mercury](#) At Its Greatest Western [Elongation](#) (19 Degrees)
- Aug 09 - [Jose De Queiroz's](#) 65th Birthday (1954)
- Aug 09 - [Jonathan Lane's](#) 200th Birthday (1819)
- Aug 12 - [Moon Occults Saturn](#)
- Aug 12 - [Moon Occults Dwarf Planet Pluto](#)
- Aug 12 - [Perseids Meteor Shower](#) Peak
- Aug 13 - [Asteroid 19367 Pink Floyd](#) Closest Approach To Earth (1.319 AU)
- Aug 13 - [Anders Angstrom's](#) 205th Birthday (1814)
- Aug 14 - 20th Anniversary (1999), [Galileo](#), Callisto 22 Flyby
- Aug 16 - [Valeri Ryumin's](#) 80th Birthday (1939)
- Aug 16 - [Pierre Mechain's](#) 275th Birthday (1744)
- Aug 19 - [Willard Boyle's](#) 95th Birthday (1924)
- Aug 20 - [Jons Berzelius'](#) 240th Birthday (1779)
- Aug 21 - [Augustin-Louis Cauchy's](#) 230th Birthday (1789)
- Aug 22 - [Samuel Langley's](#) 185th Birthday (1834)
- Aug 24 - [Venus](#) Passes 0.3 Degrees From [Mars](#)
- Aug 24 - [Anna Lee Fisher's](#) 70th Birthday (1949)
- Aug 24 - [Greg Jarvis'](#) 75th Birthday (1944)
- Aug 25 - [Northern Iota Aquarids Meteor Shower](#) Peak
- Aug 25 - 30th Anniversary (1989), [Voyager 2](#), Neptune Flyby
- Aug 25 - [Vincenzo Silvano Casulli's](#) 75th Birthday (1944)
- Aug 25 - [Ron Greeley's](#) 80th Birthday (1939)
- Aug 28 - 230th Anniversary (1789), [William Herschel's](#) Discovery of Saturn Moon [Enceladus](#)
- Aug 30 - 40th Anniversary (1979), [1st Observation of a Comet Collision with the Sun \(Comet Howard-Koomen-Michels with SOLWIND I\)](#)

Library Loaner Telescope Program Status

Library	Telescope Donated By	Telescope Placed	Available for Checkout	Library Status
Logan Library	CVAS	6/10/2018	10/15/2018	Loaning out with Holds pending
Logan Library #2	ICON Health & Fitness 	6/18/2019	7/15/2019	Loaning out
Hyrum Library	CVAS	12/11/2018	2/1/2019	Loaning out
Smithfield Library	Occipital, Inc	12/14/2018	4/10/2019	Loaning out
North Logan Library	Utah NASA Space Grant Consortium 	3/4/2019	4/5/2019	Loaning out
Cache County Library (Providence)	INOVAR & CVAS Members	3/1/2019	5/22/2019	Holds on telescope
Lewiston Library	Schreiber Food's 	Last Week of June (Tentative)		Telescope was placed and they are in the process of setting it up.
Richmond Library				
Preston Library	Idaho NASA Space Grant Consortium			Idaho Consortium is sending the library the award and they will order the items. We will make the modifications
Mendon Library	Campbell Scientific 	4/8/2019	5/30/2019	Loaning out
Newton Library				

CACHE VALLEY ASTRONOMICAL SOCIETY MEMBERSHIP APPLICATION FORM

Member # _____

NAME: _____
 First Middle Initial Last

Address: _____
 Street City State Zip Code

Home Phone: _____ Cell Phone: _____

Work Phone : _____ Occupation : _____

Email Address: _____

How did you learn about CVAS?

_____ Website _____ Star Party _____ CVAS Member _____ Other _____

Membership: \$20 a year

Tell us about yourself: Do you have a special interest in astronomy? Do you have special skills? Are you willing to volunteer on CVAS projects or attend public outreach star parties? Astro equipment owned.

By signing this application, I acknowledge I have access to the CVAS website, cvas-utahskies.org, and the CVAS Constitution. I agree to abide by the constitution.

Signature: _____ Date: _____

Bring this form to the meeting or Mail Application to:

Brad Kropp, CVAS Treasurer
1573 E 1425 N
Logan, UT 84341

For any questions contact our Treasurer at brad.kropp@usu.edu or our Secretary Wendell Waters at wendellw57@comcast.net