CACHE VALLEY ASTRONOMICAL SOCIETY
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CACHE VALLEY CLEAR SKIES

Journal of the Cache Valley Astronomical Society

Volume 9 No. 5 | Februrary 1, 2022 | https://cvas-utahskies.org

PRESIDENT'S CORNER

by Bruce Horrocks

Shannon Horrocks

We are now one month into this new year, and while it has been great for the James Webb Telescope, things in Cache Valley have not been the best for any kind of observing of the night skies. Lots of clouds, fog, haze—and then when it is finally a bit clear there always seems to be a lot of moonlight to contend with. Hopefully this new month will bring us a few clearer nights to observe and get out and see something. The good news for this month has been the successful deployment of the James Webb Telescope and for now it looks like all things are working satisfactorily and proceeding as planned.

We realize there is a resurgence in the COVID cases again and hope that you will all take the needed precautions to stay safe and be healthy. We only have three more club meetings until April, and we hope that we can continue to have some semblance of our club meetings until spring arrives and we can resume some star parties. We also have been trying to support the Cache Valley School STEM activities and thank those who have helped, and those who will help out in the next few months.

Our first meeting of the year was our time for show-and-tell, and we greatly appreciate those who shared some of the new ideas or astronomy items they have acquired. For those of you who were not able to attend our meeting, here is a short recap.

Bruce Horrocks – Shared some information on the ZWO ASI294MM camera. This is a great upgrade from other monochrome cameras such as the ZWO 1600MM camera that has been out for years. While the camera has some great new features and benefits, the 294 chip has always had a problem

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UPCOMING EVENTS

Meeting

Date: Wednesday, February 16, 2022
Time: 7:00 p.m.
Place: Nibley City Offices
455 West 3200 South
Nibley, UT 84321
Guest Speaker: Carl Richards will speak to us about night photography of the Milky Way.

STEM Events

School STEM events are a great chance for us to share our love of astronomy! We only need two to three people for each event. Contact Bruce to volunteer. Because of the pandemic, a face mask might be required, and we might have last-minute cancellations. During the winter, we stay indoors, so you won't have to worry about getting cold! Upcoming dates:

- February 10: Sunrise Elementary
- February 17: Lincoln Elementary

Please plan to arrive at 5:30.

Keep up to date by visiting our website:

President's Corner, cont'd from p. 1

with amp glow that will need to be corrected with dark images in the processing.

Dell Vance – Provided a bit of information about a new dew shield he has been using. While I am not sure the exact brand, he did mention that it has worked great for him and while it does use quite a bit of power, it has prevented that dreaded dew from forming on this telescope lenses. If this has been a problem you have been experiencing, I would highly suggest getting with Dell to get some additional information.

Blaine Dickey – Showed the club a binocular inverted viewing apparatus he built using a quality mirror and some other minor hardware. The device holds the binoculars in a downward viewing position pointed to a mirror that is able to tilt back and forth for viewing the sky. The natural position of the binoculars creates a very stable viewing condition which allows the user to sit comfortably in a chair while viewing the sky.

Tom Westre – Shared some deep-sky galaxies he has been observing with his telescope. These are galaxy clusters that are 14th to 17th magnitude or dimmer and in the billion-light year distance range. There are some lists and websites you can look up that will show some of these extreme deep space objects, and maybe we will need to issue a club challenge to all of us to see what we can find out there. As Tom explained so well, it truly is phenomenal that we are able to see these very faint distant objects.

Dale Hooper – Is soon to retire and shared with our club a solar scope device that he is working on. Much of the materials and information he has been getting from France. We congratulate Dale on this milestone in his work life, and all look forward to seeing him complete his solar viewing device. It looked kind of complicated to me, not to mention the added obstacle of the French language translation. I guess I can only say, "Bonne chance."

We were glad to see a few newcomers to our meeting and hope that many of you will come again next month and feel welcome to our club. We are aware that there are many new club members who have been added to our club email list. We hope you are enjoying the newsletter and hope to see you at future meetings or star parties.

I recently had an experience that left me thinking much about life and the things we do. I received a call from a local valley resident who had inherited a box of astronomy books, lenses, tools, and many other (what I would call) antiquated astronomy items. There were some large glass blanks from which this individual had planned to make a telescope. The box contained notes and other information on how to finish this scope and build a wooden mount with some metal pipe fittings. That same night I looked through this box of historical booklets and items, I read a short poem by Mary Oliver and was intrigued by the last few lines.

> Doesn't everything die at last, and too soon?
> Tell me, what is it you plan to do
> with your one wild and precious life?
>
> Mary Oliver (1935–2019) "The Summer Day"

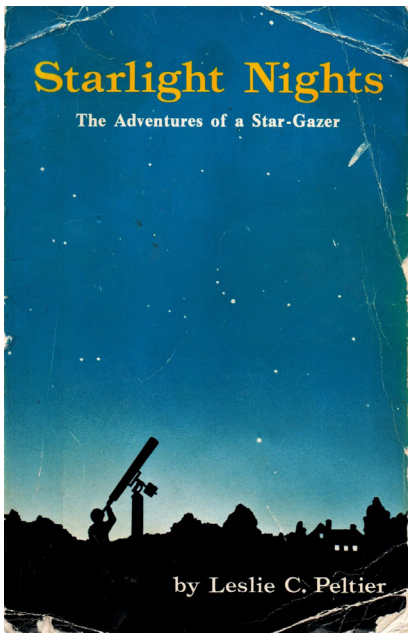
I am not sure what this individual did with their apparent love of astronomy. Did they make a telescope, and this box was the leftover materials? Did they buy a telescope that they enjoyed for many years? Were they sick or injured and unable to ever start or finish the telescope? Or did they just lose interest and choose a different hobby? Whatever the situation, I have chosen to pursue my hobbies and interests to the best of my time and abilities. I realize I can't do everything I would like to do, but I would encourage that, regardless our situation, we use our short time of this earth to our best, and enjoy this "one wild and precious life." We want to thank all those who have helped with our club meetings and STEM activities. We appreciate your willingness to contribute to our club. Let's hope for some clearer skies this month, and that you are able to get out and enjoy some star time.

Clear Skies,
Bruce Horrocks

STARLIGHT NIGHTS: THE ADVENTURES OF A STAR-GAZER

A Book Review

by Blaine Dickey



Blaine Dickey

If there ever was a book that captures the essence and spirit of amateur astronomy my vote would have to go to the book *Starlight Nights: The Adventures of a Star-Gazer* by Leslie C. Peltier.

Leslie Peltier was born on the second day of the 20th century in 1900 and lived at a time when electricity was not widely available. He lived and worked on a farm in Delphos, Ohio, when electric lighting had not yet spread to rural areas in our country. Light pollution was little known in those days.

The book is a story of how Leslie became interested in astronomy; how he obtained a modest-sized first telescope from money he earned diligently picking strawberries on his father's farm, and how his passion eventually led him to become one of the world's greatest amateur astronomers. He systematically learned the night sky from a book he borrowed from a library in Delphos, Ohio, while a teenager and then went on to own several telescopes. He built a telescope observatory later in life that he could sit in to observe variable stars. The whole observatory with telescope would turn like a merry-go-round that he controlled with a steering wheel as he went from variable star to variable star in the night sky. He became one of the most prolific variable star observers of his time. He also discovered many comets during his lifetime.

He tells a wonderful story about when he discovered his first comet. He hurriedly took a five-mile ride on his bicycle in the dark of night, with no light to show him the way, to the telegram office in Delphos to send a message of his discovery to Harvard College Observatory.

This book captures the feelings I had as a boy when I became interested in amateur astronomy, when there was only minimal light pollution in Cache Valley. In the days of my youth, the Milky Way was visible across most of the sky and stars down to 6th magnitude were easily seen from my backyard in Millville, Utah.

I have loved this book and have read it several times, and periodically will go back and review the stories that make this book so outstanding. Unfortunately, this book is no longer in print but a used one can still be obtained on Amazon or at other used book stores.

Leslie Peltier is a gifted storyteller and writes about his experiences in such a way that you feel like you are there on his farm at his side as he tells of each adventure in his unique writing style. This book is well worth reading. It is a great book to read on these long, cold winter nights, when maybe you don't quite feel up to going outside to observe in the cold night air.

GoodFreePhotos

FINDING CASSIOPEIA AND THE ANDROMEDA GALAXY

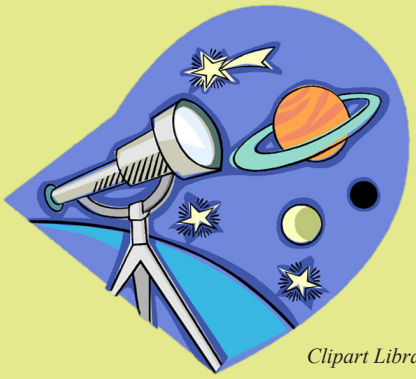
by Dell Vance

The constellation Cassiopeia is easy to locate in the northern skies. Simply find the pointer stars of the Big Dipper to find the North Star. Keep going in that same general direction and you will find 5 very bright stars that form a "W." This is Cassiopeia the Queen. On February 1, the constellation Cassiopeia will be upside down. Starting at the top, which is her foot, and working our way down we have the following:

Dell Vance

- Segin, magnitude 3.35, is a Blue-White main-sequence star. Spectral Class B3 V. It is the only one of the five stars that is not a variable double star.
- Ruchbah, magnitude 2.65, is a Blue Subgiant. Spectral Class A5 IV. It is also a variable double star.
- Navi, magnitude 2.15, is a Blue-White main-sequence star. Spectral Class B0.5 IV. It is also an eruptive variable double star.
- Shedar, magnitude 2.2, is a Light-Orange normal giant star. Spectral Class K0 III. It is also a variable double star.
- Caph, magnitude 2.25, is a Yellow-White normal giant star. Spectral Class F2 III. It is a pulsating variable double star.

It is easy to find the Andromeda Galaxy by drawing a line from the North Star through Shedar and continuing about 25 degrees to the left. Taking your right hand, at arms-length, with the little finger and thumb extended, put the little finger on Shedar and the thumb will be close to the area of the Andromeda Galaxy. On a dark moonless night, it is readily visible with the naked eye. Using a pair of binoculars, a camera with a telephoto lens, or a telescope, it is spectacular.



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Got a cool image, story, or article? Please share it with us! Send it to Bonnie at bschenkdarr@gmail.com.

ASTROPHOTOGRAPHY GALLERY

Recent Images by Club Members

The Moon

Taken in January 2022 by Bruce Horrocks.

CACHE VALLEY ASTRONOMICAL SOCIETY

Our Website: CVAS-UTAHSKIES.ORG

EXECUTIVE COMMITTEE

- President: Bruce Horrocks; bruceh@gembuildings.com
- Vice President: James Somers; james.m.somers@aggiemail.edu.usu
- Secretary/Treasurer: Bonnie Schenk-Darrington; bschenkdarr@gmail.com
- Night Sky Network Coordinator: Garrett Smith; GarrettGillSmith@gmail.com
- Past President: Dell Vance; avteam.dell@gmail.com
- Public Relations: Lyle Johnson; lyledj@aol.com
- Webmaster/Librarian: Tom Westre; twestre45@aol.com

EXERCISE + ASTRONOMY = THE PERFECT COMBINATION!

by Bonnie Schenk-Darrington

What if you could . . .

1. Improve your physical health,
2. Social distance,
3. Earn some cool bling,
4. Support a great charity, and
5. Admire the sky, all at the same time?

Virtual Run Events

Virtual Run Events Powered by Moon Joggers might be the website for you! I am a shy person; I don't enjoy huge crowds; and I am not a fast runner. I prefer to walk, really. But I still love to earn medals. I have done many fun virtual races and earned some cool swag!

Each year, Virtual Run Events does a yearlong challenge based on the miles it takes to reach a certain planet—or dwarf planet in this case, because 2022's challenge is to combine your miles with everyone else's to reach Pluto! This race benefits Soles4Souls, a charity that provides shoes for needy people around the world.

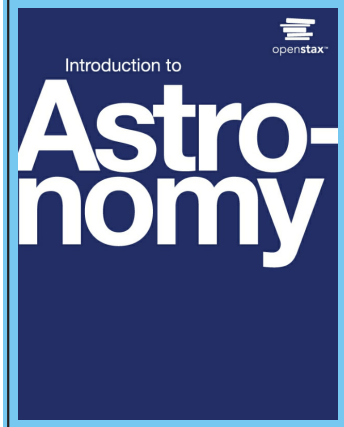
My personal favorite astronomy race is the Full Moon Challenge! You walk or run a set amount (one mile, five kilometers, whatever) each month in honor of the full moon. I have done this challenge every year since 2019. I like to walk outside during the full moon when I can. But I'm not gonna lie—I mainly walk inside on the treadmill for the cold, dark winter nights! This race also benefits Soles4Souls.

Not all of the races are astronomy-themed but all benefit some worthy cause, such as Feeding America, Operation Underground Railroad, Homes for Our Troops.

And you won't want to miss the clearance races! You can nab a cool medal (including past medals for planets such as Mercury and Neptune—because it's so tempting to collect the whole set!) and find some motivation to get out there and move at your own pace!

Free Astronomy 101 Textbook Now Available!

In an effort to democratize knowledge, the OpenStax project produces free digital and inexpensive hard-copy college-level textbooks written by professionals in many fields. You do not have to be a college student to request a copy. You can read more about the new astronomy textbook here. And you can download or order a copy here.



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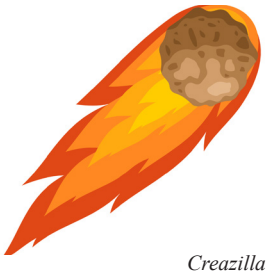
A LITTLE ASTRONOMY HUMOR

Memebase

UPCOMING ASTRONOMY EVENTS AND ANNIVERSARIES



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- All month: Great Comet of 1556 first observed in Europe.
- Feb. 1: Chinese New Year/Lunar New Year: The Year of the Tiger commences.
- Feb. 1: New moon.
- Feb. 2: Friedrich Schmiedl launched a rocket containing 102 letters in 1931, the first rocket-delivered mail. It traveled from Schöckl to St. Radegund, a distance of about three kilometers. He operated the rocket by remote control and landed it by parachute. He hoped to convince the Austrian Post Office to deliver mail by rocket but was unable to persuade them.

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- Feb. 3: The Soviet Union landed the first unmanned spacecraft, Luna 9, on the moon in 1966.
- Feb. 5: Mariner 10 was the first spacecraft to use a gravity assist as it flew by Venus, on its way to Mercury, in 1974.
- Feb. 5: The High Energy Solar Spectroscopic Imager (HESSI) solar flare observatory was launched in 2002.
- Feb. 6: Alan Shepard hit a golf ball on the moon during the Apollo 14 mission in 1971.
- Feb. 7: Mars autumnal equinox. (You can read more about the Mars calendar here.)
- Feb. 7: Close approach of Uranus and the moon. They will be best viewed with binoculars.
- Feb. 8: Mercury at greatest altitude in the morning sky.
- Feb. 8: Peak of α-Centaurid meteor shower.
- Feb. 9: Venus at greatest brightness.
- Feb. 15: Astronomer and physicist Galileo Galilei was born in 1564.
- Feb. 15: The Leviathan of Parsontown, a reflecting telescope with a 72-inch aperture in Leinster, Ireland, saw first light. It was the largest telescope in the world from 1845 to 1917, when it was finally surpassed by the Hooker Telescope at Mount Wilson Observatory, California, which had a 100-inch aperture.

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- Feb. 16: Full moon.
- Feb. 18: Mars rover Perseverance landed in 2021. (You can check out the NASA Perseverance blog here.)
- Feb. 18: Astronomer Clyde Tombaugh discovered Pluto in 1930. It was the first discovery of an object in the Kuiper Belt; originally considered a planet, Pluto is now considered a dwarf planet.

Vecteezy.com

- Feb. 20: The Soviet Union launched the first module of the Mir Space Station in 1986.
- Feb. 22: Max Wolf discovered the first Trojan asteroid (588 Achilles).
- Feb. 23: Mail was first successfully delivered by rocket in the United States in 1936. The rocket flew less than 100 yards, from one side of New York/New Jersey's Greenwood Lake to the other. (For a brief history of rocket/missile mail, see this article.)

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- Feb. 23: Venus at greatest altitude in morning sky.
- Feb. 25: Mariner 6 mission launched to study the atmosphere and surface of Mars in 2002.
- Feb. 26: Niccolo Cabeo was born in 1586. He was a monk, philosopher, and engineer, who performed experiments with falling objects, pendulums, and electrically charged objects.

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