CACHE VALLEY ASTRONOMICAL SOCIETY
cvas-utahskies.org

CACHE VALLEY CLEAR SKIES

Journal of the Cache Valley Astronomical Society

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PRESIDENT'S CORNER

by Dell Vance

Ann-Maree Vance

June has been a great month. We had a good social to start the month off. We were able to visit with some of our members we haven't seen for a while and renew our passion for the hobby. Also, during the month we participated in the Nibley Heritage Days Festival. It was a good event even with the clouds drifting over the sun. We gave out NASA lithograph images to those that stopped by.

I was able to get an image of M31, the Andromeda Galaxy, with my 100mm telescope. It provides a wider field of view so I was able to get about 90% in the image. This has been one of my goals for this telescope. That is the beauty of our hobby: there is always another way to view the objects.

With days as long as they are, it is difficult to have star parties. They would just start too late for most people. We do have a Solar Party lined up for the Little Wonders children the morning of the 25th of this

cont'd on p. 2

Vecteezy

STAR PARTY SEASON IS HERE!

Upcoming Star and Solar Parties

- July 17: Star party at Bear Lake. 8:00 p.m. at Rendezvous Beach. Contact Tom Westre to volunteer.
- July 25: Solar party at Little Wonders Preschool/Daycare/Day Camp. 9:30 a.m. at 3223 S. Main St., Nibley. Contact Dell Vance to volunteer.
- August 10: Star party for Girl Scouts up Logan Canyon. More details TBA. Contact Dell Vance to volunteer.
- August 18: Star party at Newton Library. 9:00 p.m. at 51 S. Center St., Newton. Contact Dell Vance to volunteer.
- August 25: Star party and Telescope 101 class at Smithfield Library. 7:30 p.m. at 25 Main St., Smithfield. Contact Bruce Horrocks to volunteer.

Check your email for more info about upcoming star and solar parties!

Keep up to date by visiting our website:

month. It should be a good event. The children have a day camp and have asked us to participate.

We are also getting requests for star parties in August and September.

It is great to see involvement by the club in these outreach activities. Be sure to take time to look up and have a great summer.

Thanks again for all your support.

Clear Skies,
Dell Vance

Image courtesy of the author.

ATTENTION LIBRARY TELESCOPE COORDINATORS!

iStock and Creazilla

Star party season is here!

Please contact your library and ask if they would like CVAS to host a summer star party for them.

Your community will thank you!

RECENT NOTABLE ASTRONOMICAL EVENTS

by Blaine Dickey

There are interesting celestial events happening in the sky all the time, but they can be easily missed without careful planning.

The sun has been quite active this year, with many sunspots appearing on its face. This image of the sun (figure 1) was taken on the afternoon of May 25, 2023. Seven distinct sunspots can be seen on its surface. No doubt, many more spots will be seen this year.

Figure 1

Far outside of our Milky Way galaxy, another important event took place this year on the night of Saturday, May 20, 2023. A bright supernova was spotted in the spiral galaxy Messier 101. Supernova 2023ixf brightened to about magnitude +10.8, making it visible to the naked eye in amateur telescopes. This supernova occurred about 20 million years ago but is only now visible to us here on earth (figure 2).

Much closer to home, the planet Mars (figure 3) moved into the open cluster Messier 44, which is a large, impressive cluster that can be seen with small telescopes. It had been cloudy that day but I took a look in the evening and was able to catch the cluster as it passed between some clouds on Friday, June 2, 2023. This sighting was the first time I had ever seen this occur in all my years of observing this cluster. This large cluster and Mars were imaged with an 80mm refractor and a NIKON D5100 DSLR camera.

A conjunction between Venus and Messier 45 occurred on the evening of Monday, April 10, 2023. This image of Venus and Messier 45 (figure 4) is pretty

Figure 2

Figure 3

Figure 4

cont'd on p. 4

Book Review, cont'd from p. 3

close to how it would have looked in a pair of binoculars.

The moon passed in front of the planet Jupiter on the morning of May 17, 2023, at about 6:30 a.m. (figure 5). The sky was brightening quickly and I couldn't see the moon except through binoculars. Fortunately, I was able to point my camera and telescope (80mm refractor) in the right direction and captured this view just a few minutes after Jupiter came out from behind the moon. I had seen this type of occultation years ago but I did not get a picture of it then. Now I have a permanent image of how it appeared in my 80mm refractor.

Finally, our closest neighbor as it appeared on the night of June 3, 2023 (figure 6). This image shows the lunar maria on our side of the moon, as well as craters such as Tycho, near the south pole of the moon. Copernicus appears at the center-left, where long rays of material can be seen spread across much of the moon's surface. The Sea of Tranquility appears above center-right, where several Apollo missions laded. It would take a lifetime to observe all the details on the moon's surface.

Images courtesy of the author.

PNGEgg

Figure 5

Figure 6

Your Image Could Be Here Next Month!

We all learn when you share your astrophotography with the club!
Send your images to bschenkdarr@gmail.com for publication!

THE KEYSTONE OF HERCULES

by Tom Westre

There are 88 official constellations recognized by the International Astronomical Union. Constellations are generally used to identify and locate objects in the night sky. While the official constellations are made up of star patterns such as Ursa Major or the Big Bear, an asterism is another way of seeing star patterns. A common example is the Big Dipper, a group of seven stars, three forming the handle and four forming the bowl. These seven stars are an asterism within the larger constellation of Ursa Major, which consists of many more stars. Other asterisms are the summer triangle that is made up of the three bright stars of Vega, Deneb, and Altair.

An asterism is another way of seeing star patterns.

As we approach the summer solstice on June 21, the constellation Hercules is high above the southern horizon. Although it consists of many stars, the most common are the four stars that make up the Keystone of Hercules asterism.

The Keystone star asterism, although it can be seen by the unaided eye, is fainter, so the best way to locate the Keystone is to find the bright stars Vega and Arcturus. The Keystone is located about 1/3 of the way from Vega to Arcturus

The brightest star of the four, in the Keystone, is Zeta Herculis, also known as Rutilicus. It's located in the lower right corner of the Keystone.

The famous Hercules Globular Cluster, Messier 13, is located just above Rutilicus. Messier 13 consists of 300,000 stars and lies 22,000 light-years from earth. You might need a small telescope or binoculars to see this beautiful object.

Vecteezy

This article was originally a script for CVAS's UPR radio show, broadcast on June 13, 2023.

CACHE VALLEY ASTRONOMICAL SOCIETY

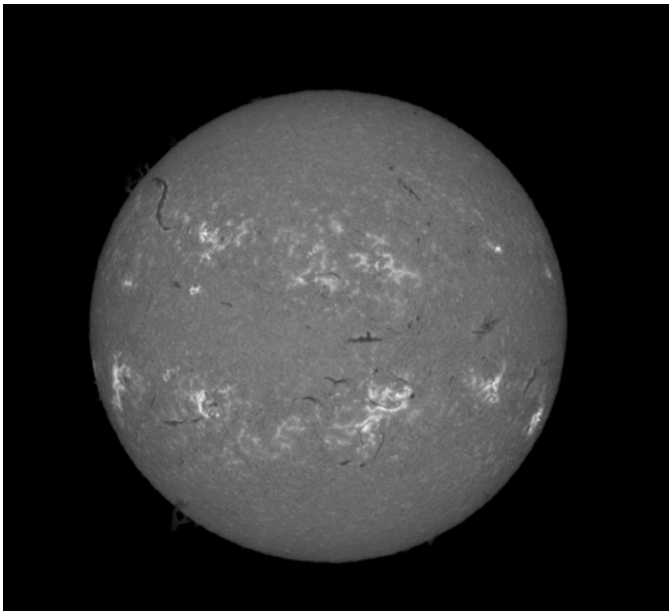
Our Website: CVAS-UTAHSKIES.ORG

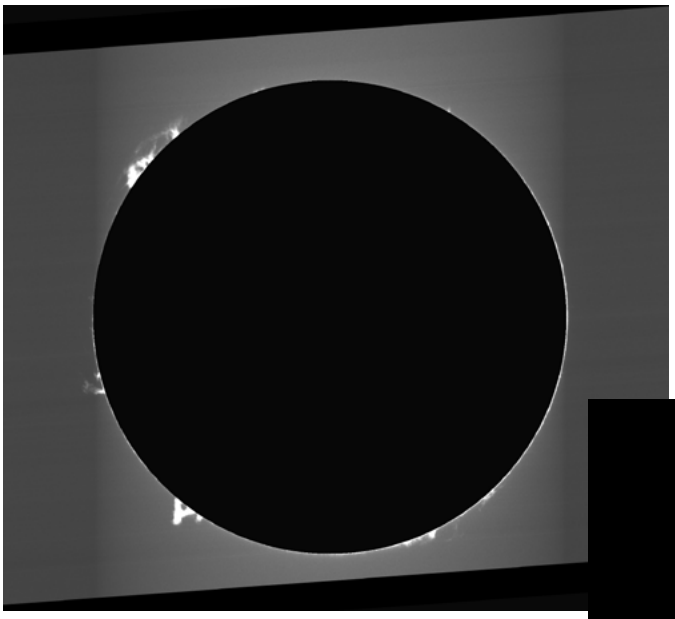
EXECUTIVE COMMITTEE

- President: Dell Vance; avteam.dell@gmail.com
- Vice President: Dale Hooper; dchooper5@gmail.com
- Secretary-Treasurer: Bonnie Schenk-Darrington; bschenkdarr@gmail.com
- Night Sky Network Coordinator: Dell Vance; avteam.dell@gmail.com
- Public Relations: Bruce Horrocks; bruceh@gembuildings.com
- Webmaster-Librarian: Tom Westre; twestre45@aol.com

ASTROPHOTOGRAPHY GALLERY

Recent Images by Club Members





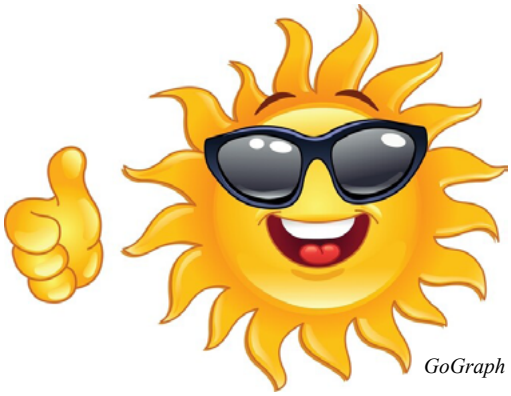
Dale Hooper

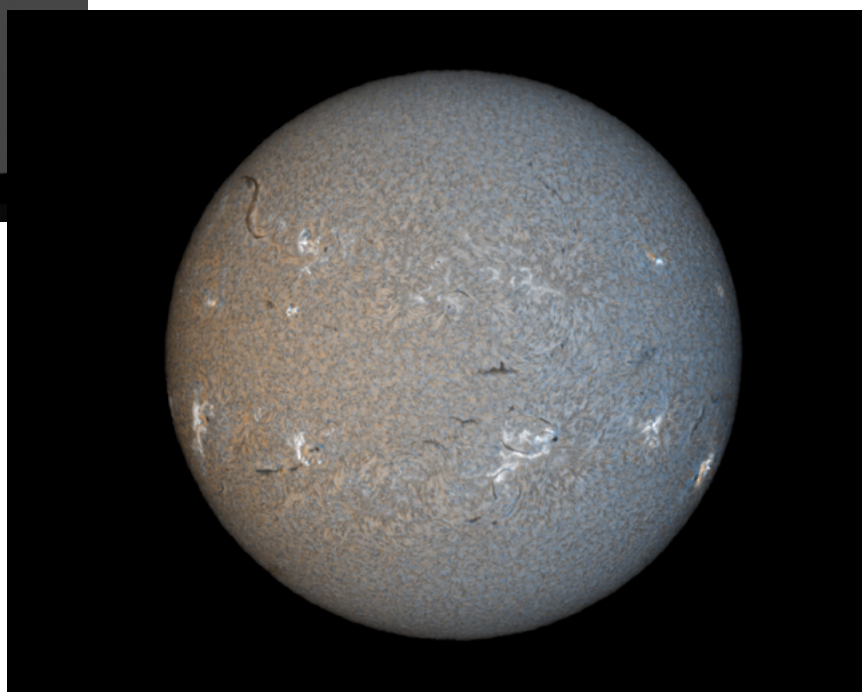
All of these images were taken with a Sol'Ex spectroheliograph, William Optics Z61II APO telescope, and ZWO ASI 1600mm Pro camera on a Celestron AVX mount.

Upper left: The sun in hydrogen alpha.

Middle left: Prominences on the sun in hydrogen alpha.

Bottom: Hydrogen alpha Doppler image.

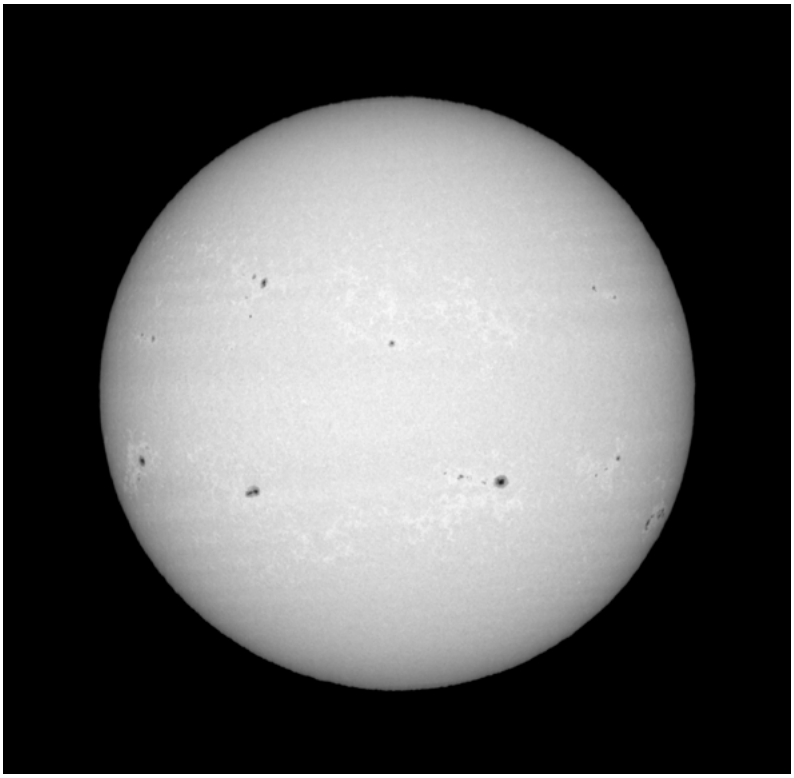




ASTROPHOTOGRAPHY GALLERY

Recent Images by Club Members

Dale Hooper

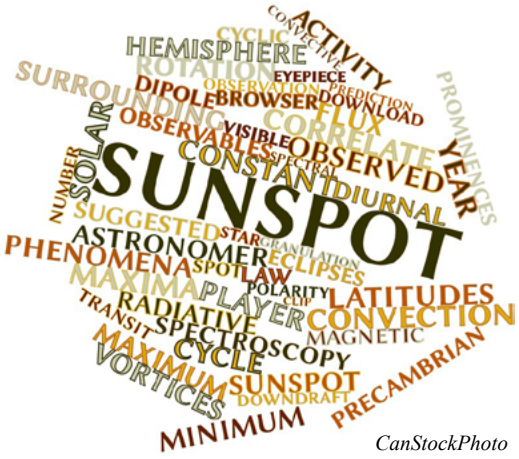


Upper right: Solar photosphere.

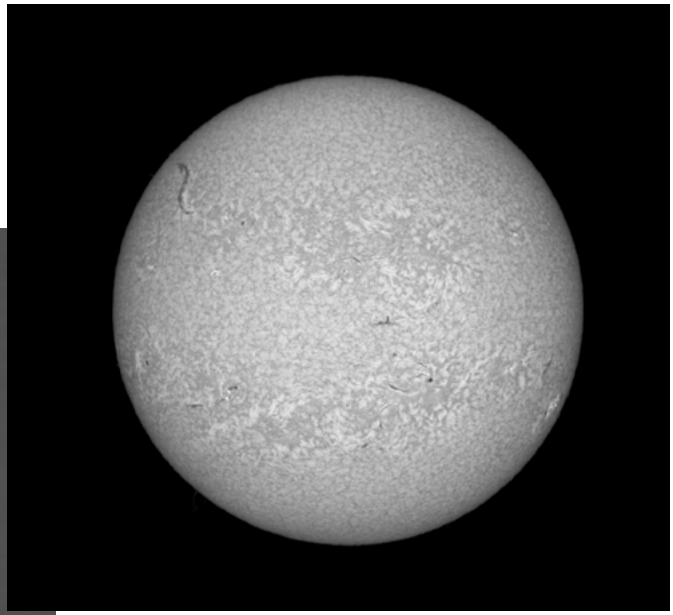
Middle right: Sun in hydrogen beta.

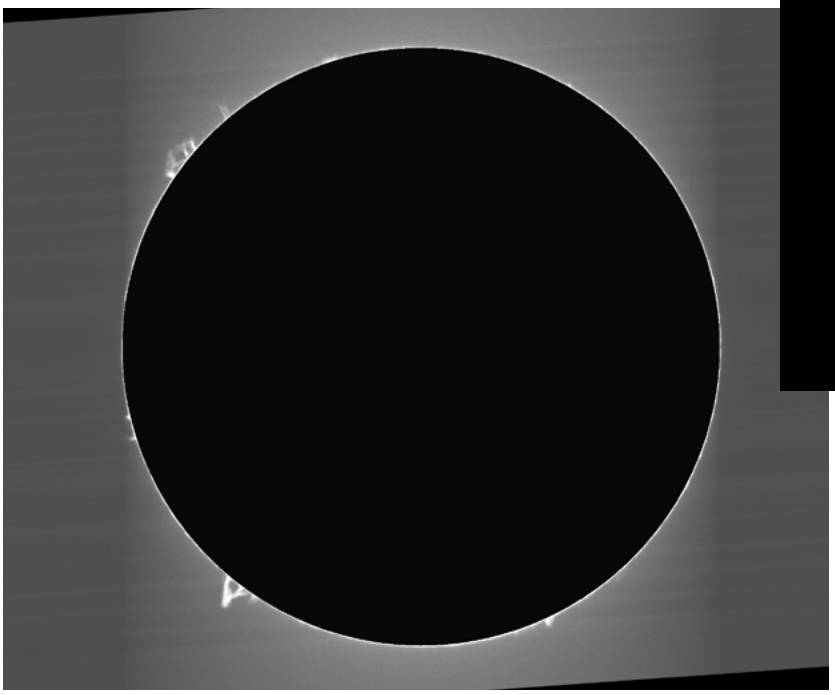
Bottom: Prominences in hydrogen beta.

You can see more of Dale's images online at https://flic.kr/s/aHBqjAJvz6.



CanStockPhoto





Wheeler Farm

Come enjoy a unique, family-friendly experience. Stroll around the farm to absorb some history and meet the animals. Then, from 1:00–3:00 p.m., Clark Planetarium will host a solar party and fun activities for the kids! Don't forget your sunscreen!

Date: July 27, 2023, weather permitting
Location: Wheeler Farm
6351 South 900 East Murray, UT 84121
Cost: Free, but you must reserve your tickets here.

Classroom Clipart

You can see CVAS events on the NASA Night Sky Network calendar at https://nightsky.jpl.nasa.gov/clubs-and-events.cfm. If you don't yet have access to the NSN website, please let a member of the Executive Committee know! We can add you to the roster and help you create a login and password.

Clipart.World and Cliparts Zone

Need a quick astronomy fix?
Tune in to CVAS's astronomy show on Utah Public Radio!

UTAH SKIES

Every Tuesday at 4:48 p.m.
91.5 KUSU-FM (west Cache Valley)
89.5 KUSR (east Cache Valley)

You can also download the UPR app or listen to the livestream here.
Check out our past radio shows here.

A LITTLE ASTRONOMY HUMOR

Matthew Buckley
@physicsmatt

If you're mad and find yourself yelling that you want someone launched into the Sun, take a moment, calm yourself, and remember that it takes a lot less Delta v to launch them out of the Solar System instead.

9:29 AM · 2020-05-01 · Twitter for iPhone

548 Retweets **2,023** Likes

Matthew Buckley @physicsmatt · 21h
Replying to @physicsmatt
You can be mad, but that's no excuse to be inefficient with propellant.

frickdun
[slides nasa $20] so, tell me about the aliens

nightcoremoon
aliens: [slide nasa $40]

nasa: lmao what aliens

candy5hark11
nasa, with $60, holding back tears: we can finally afford some more space rocks

Twitter Books
@TwitterBooks

Last book that made you cry

4:52 PM · 1/27/20 · Sprinklr

23 Retweets **144** Likes

[redacted]
Replying to @TwitterBooks
University Physics with Modern Physics 14th Edition by Hugh D. Young, Roger A. Freedman

1 3

Roger Freedman @RogerFreed... · 5h
No doubt tears of joy.

Jay Van Bavel
@jayvanbavel

Van Gogh's starry night with the first image taken from the James Webb Telescope

kindpng and Memebase

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 lifetime membership

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 contact **Bonnie Schenk-Darrington, Secretary/Treasurer** at bschenkdarr@gmail.com.