



Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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www.cvas-utahskies.org

Meeting Announcement

Due to the ongoing covid-19 crisis, there will be no meetings or other events until further notice. We will for sure let you know when we are planning to get together again. Until then, please stay safe and stay healthy.

Clear Skies!

The CVAS Executive Committee

STAR PARTY !!!

We are having a star party on Wednesday, October 7th starting at 6 pm at the Heritage Park in Nibley. There will be light refreshments. Bring your newest “astro-toy” to show and tell!

The President’s Corner By Bruce Horrocks – CVAS President

Fall is finally here!! I must admit I really like living in a place where the seasons change. I need that for something to look forward to. Summer seemed hot, dry, and smoky. I am really glad to see the skies clear out quite a bit and finally see some blue skies during the day. We hope you are all doing well and staying healthy both physically and mentally during this pandemic. So, we really hope you can get out and enjoy some beautiful fall colors and some good star-gazing at night.

Normally we should have started back up our club meetings by this time of year and I do miss being able to get together and having some great conversations. We have a lot of wisdom and knowledge in our club and the meetings seemed like a good avenue to share this with each other. We have talked about having some star parties, which we will still schedule for this month. In fact, we would like to have a star party on October 7th at 6:00 PM. We will plan on meeting at the Nibley

Heritage Park. We would like everyone to come out and see what new gear any of you have picked up recently. We will be having some light refreshments. Do not worry about bringing your big heavy telescope, but if you have found something new you would like to show the club members please bring it. Hope to see you all there and we will plan on keeping our social distance and staying safe.

This month should be a great time to get out and see the moon and Mars. There will be two full moons this month and so if you like full moons get out there and enjoy all the night light. The other great event is the Mars opposition. Mars will get the closest it has been to earth in many years on October 13th. I was able to get out and look at it last night and was easily able to see the polar ice cap and some dark features on the planet. I remember when this happened back in 2003 and my dad and I purchased a new 11" Celestron SCT for the event. If you want to have a look at Mars and don't have a telescope, please feel free to contact me or any of the other club members and I am sure we can find a scope for you to look through.

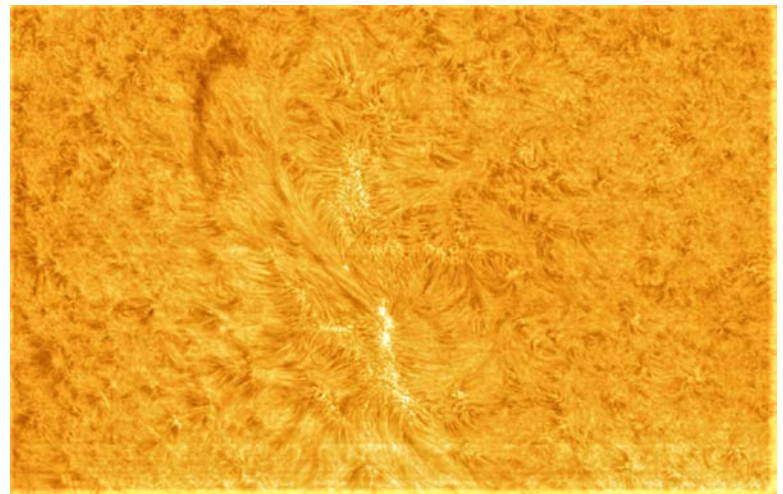
Since this new letter seems to be the current best method of sharing information with members of our club, I would like to take a moment and encourage each of you take some time and if you have something you would like to share with the club, write it down and send it to Wendell. We really don't care if you have a PhD in physics or like my grandfather only finished the 9th grade. I am sure that each of you has some great information you can share with our club. In fact, it doesn't even have to do with astronomy. If you have some interesting facts we would love to hear from you. If you have a camera and have got some great star pictures, please feel free to share them with us as well. We would really appreciate it and it is a great way to get to know each other.

We do wish you the best this month and again hope to see you October 7th at our star party. Remember October 7th, 6:00 PM, Nibley Heritage Park. See you there. Here's to clear skies.

Bruce Horrocks



The Moon on September 29. Photo by Bruce Horrocks



Surface of the Sun Oct 1. Photo by Bruce Horrocks

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

A scope handy at all times By Blaine Dickey

One time as a young boy of about 12 years of age, I saw what appeared to be an unfamiliar brilliant star in the western sky, above the Wellsville Mountains. Fortunately at the time I was able to go back into my room and grab my small 3 inch reflecting telescope from Edmund Scientific. After setting it up in our side yard I carefully pointed it toward the brilliant object and was surprised to see a weather balloon! If I had not had a small telescope that I could easily set up I may never have known what that object was.

A while back while reading Sky and Telescope, I came across an article about a small wooden mount with a telescope mounted onto it with a metal pipe mount. I had a small 90mm scope from Orion that needed a mount to be able to use it. This seemed like a good solution.

I built a mount at that time and it turned out to be a good mount but I knew it could be made more solid and steady and could be modified to accommodate more than one telescope. The picture of the mount below is the result of this idea.



This mount can be used for two of my telescopes, my 90 mm Orion refractor, and my Astronomy without Borders 5 inch reflecting telescope. Both scopes give wide rich field views of deep sky objects and are a delight to use.

And how well does this mount work? It is very solid with little to no vibration while observing with either of these scopes even in a wind. There is also a place to hold my eyepieces underneath the mount that also serves to strengthen the mounts steadiness.

The image below shows the pipe mount assembly that holds the 90mm scope.



The 90 mm is threaded onto the wooden mount as seen below. With this mount I can look at objects near or at the Zenith with complete comfort.



Finally the three indented shallow holes around the outside of the wood disk hold the small rubber feet on the bottom of the five inch reflector and keep it from sliding off the mount.



When I want to relax and go out under the stars to observe the wonders of the universe, comets, sunspots, and planets and don't want to spend an hour setting up equipment then this is a nice solution.

Special Announcement

The CVAS website is up and operating. I would appreciate any feedback from club members. The website has a Gallery page and club members are invited to email me any images they take with their telescopes. If they include their name, type of telescope and camera that would also be informative. I also have a page for club members to send a picture of their telescopes and/or observatories. I also encourage taking pictures of our meetings, STEM events or star parties for the image gallery. – Tom Westre; Webmaster

DOUBLE VISION

By Harvey Brown

They asked me how I knew,
How Astronomy was so true,
I of course replied, something here inside
Cannot be denied.

They said someday I'll find,
All the doubles that bind,
But when nature is on fire, you must realize,
Smoke gets in your eyes!!!

So after a bit of humor because of this last month of smoke in the valley and not being able to really go out and see anything more than 8th magnitude, I decided to just list a few easy Doubles.

All of these are 8th magnitude or greater so you will be able to see through the smoke. I have a great list of dimmer Doubles but when you have haze you just can't resolve them. Hope you enjoy these.

O Σ 261 Con: Canes Venatici
HIP 64405 SAO 63396 HD 114723
Mag: Pri: 7.4 Sec: 7.6
Sep: 2.6"

Type: Physical
RA 13h 12m 02.02s DEC +32° 05' 07.9"
Eyepiece: 5mm & 4mm (8/2x)
"Very close. Magnitude is the same. 4mm helped separate them just a bit along with averted vision. Hard to split."
Color: Yellow-White

Σ 2021AB Con: Hercules
HIP 79492 SAO 102018 HD 145958
Mag: Pri: 7.4 Sec: 7.4
Sep: 4.0"

Type: Physical
RA 16h 13m 18.45s DEC +13° 31' 37.2"
Eyepiece: 4mm (8/2x)
"Good double, both the same magnitude and close separation that can just be made out. Out in the open. Two eyes looking back at you."
Color: Yellow-Yellow

Σ 1963AB Con: Corona Borealis
HIP 76536 SAO 64818 HD 139569
Mag: Pri: 8.5 Sep: 8.5
Sep: 5.3"
Type: Uncertain

RA 15h 37m 53.73s DEC +30° 06' 10.4"

Eyepiece: 5mm

"Good close in magnitude and separation. You see the split good. The magnitude difference I don't see. Nice Double"

Color: Yellow-White

O ΣΣ 241 Con:Pegasus

HIP 113444 SAO 108300 HD 217163

Mag: Pri: 8.2 Sec: 8.3

Sep: 84.9"

Type: Physical

RA 22h 58m 33.60s DEC +12° 03' 04.4"

Eyepiece: 4mm (8/2x)

"Both bright, same magnitude. Wide split. Stands out good. Not hard to see this one."

Color: Yellow-White

Hope you enjoy these doubles. Enjoy your time out during this Covid period of quarantine.

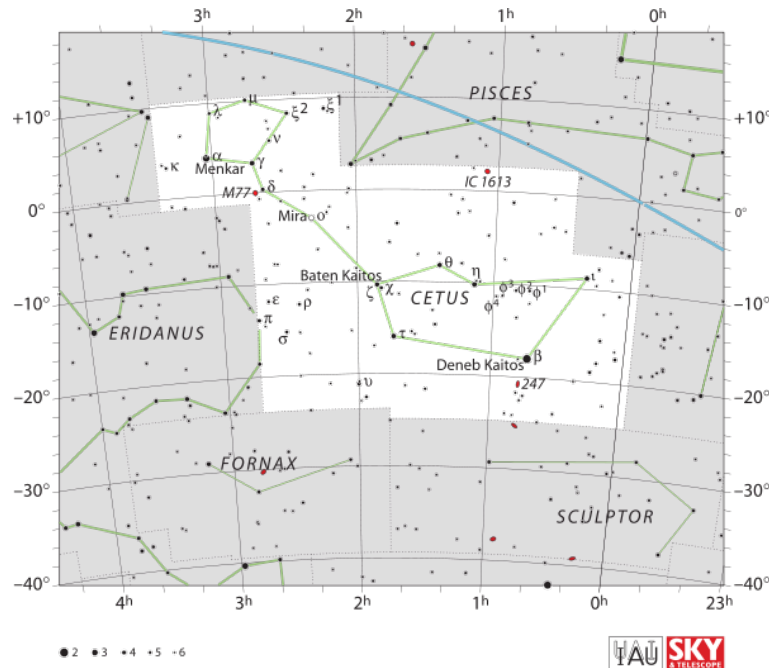
Just try to keep THE SMOKE out of your eyes.
Email: ngc6720@comcast.net

Spotlight on Cetus, the Whale

By Dale Hooper

Cetus was originally the sea monster from the Andromeda myth, but in modern times we know it as the whale. It gets a bit higher in the sky than Sculptor and like Sculptor it is composed of fairly dim stars. It is well away from the plane of the Milky Way galaxy so there are many galaxies which reside in its boundaries.

It is also the home of Mira which is the prototype of a type of variable star. Mira varies from around magnitude 2.0 to 10.1 over a period of 332 days. Mira is a red giant star that is in the process of fusing helium in its core. It is expelling the outer layers of its atmosphere – which will eventually form a planetary nebula after Mira has ceased the fusion process.



IAU and Sky & Tel - Roger Sinnott & Rick Fienberg

I am only listing objects which rate at least four stars in *The Night Sky Observer's Guide* (Cetus is in Volume 1). As with Sculptor, there are many galaxies which rate three stars which I haven't listed. Many of these three star galaxies can be readily observed with an eight inch telescope. As usual, the table is organized according to increasing Right Ascension values.

Object	R.A.	Dec.
NGC 157 (Galaxy mag 10.4)	00h34.8m	-08°24'
NGC 246 (Plan neb mag10.9)	00h47.0m	-11°53'
NGC 247 (Galaxy mag 9.2)	00h47.1m	-20°46'
26 Ceti (Double star)	01h03.8m	+01°22'
NGC 578 (Galaxy mag 11.0)	01h30.5m	-22°40'
NGC 779 (Galaxy mag 11.2)	01h59.7m	-05°58'
66 Ceti (Double star)	02h12.8m	-02°24'
Mira (Variable star)	02h19.3m	-02°59'
84 Ceti (Double star)	02h41.2m	-00°42'
Messier 77 (Galaxy mag 8.9)	02h42.7m	-00°01'
γ Ceti (Triple star)	02h43.3m	+03°14'
NGC 1087 (Galaxy mag 10.9)	02h46.4m	-00°30'
α Ceti (Binocular double)	03h02.2m	+04°05'

Newsletter Guidelines

It has been suggested by the CVAS Executive Committee that we come up with some guidelines for article submissions for our newsletter.





- We would like all submissions to be sent to Wendell by the 27th of each month. Just send him an email with the article as an attachment (wendellw57@comcast.net).
- Please submit your articles as a “Word” document.
- If you have pictures or sky maps that go with your article, please place them in the text where you would like them to be, but also send them as separate attachments in the email.
- Please try to keep them at a reasonable length (500 to 800 words or so).
- Preferred font is Times New Roman
- Perfect spelling and grammar are optional.

Your thoughts and suggestions are always appreciated. After all, this newsletter is for you. Thanks for all of your help in making our newsletter GREAT!! (the editor)

Upcoming Events and Anniversaries

- Oct 03 - [Moon Occults Mars](#)
- Oct 04 - [Eustachio Divini's](#) 410th Birthday (1610)
- Oct 06 - [David Brin's](#) 70th Birthday (1950)
- Oct 08 - [Frank Herbert's](#) 100th Birthday (1920)
- Oct 09 - [Draconids Meteor Shower](#) Peak
- Oct 12 - [Moon Occults Asteroid 433 Eros](#)
- Oct 18 - [Dwarf Planet 136199 Eris At Opposition](#) (94.975 AU)
- Oct 19 - [Subrahmanyan Chandrasekhar's](#) 110th Birthday (1910)
- Oct 20 - [World Statistics Day](#)
- Oct 21 - [Orionids Meteor Shower](#) Peak
- Oct 31 - [Uranus At Opposition](#)
- Oct 31 - [Michael Collins'](#) 90th Birthday (1930)
- Oct 31 - 100th Anniversary (1920), [Walter Baade's](#) Discovery of the 1st Centaur Object, [944 Hidalgo](#)

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				Received Telescope
Preston Library	Idaho NASA Space Grant Consortium			Telescope placed.
Mendon Library	Campbell Scientific 	4/8/2019	5/30/2019	Loaning out
Newton Library				Ready for check out

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 Mail Application to:

Janice Bradshaw, Treasurer
175 W 700 S
Wellsville, UT 84339

For any questions contact our Treasurer, Janice Bradshaw at lojbrads@yahoo.com
or our Secretary Wendell Waters at wendellw57@comcast.net