

Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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www.cvas-utahskies.org

No Meeting This Month

There is no club meeting scheduled for August. During the spring and summer months we will instead hold club (private) as well as public star parties. Most of the public star parties will be held around first quarter moon and most of the private star parties will be held around new moon. The main location for public star parties this year will be **Heritage Park** which is located at 2456 South 800 W, Nibley. Please see the club website, the **Upcoming Star Parties** section of this newsletter or contact a member of the executive committee for more information. Our next scheduled meeting is the Annual General Meeting in September.

Elections for Officers in September



WE WANT YOU!

At the September annual meeting we will again have the opportunity to elect club officers. All of the

positions are open. In addition, there are appointed positions which you can volunteer for. Please consider running for one of the officer positions or volunteering for an appointed position.

The President's Corner By Dell Vance, CVAS President



The nights are getting longer and the sky is getting darker earlier every night. This is good news for those of us that want to see the stars and still get a good nights' sleep. With all the summer activities

and family gatherings, these nights of observing are few and far between.

I have been able to work in some practicing using my new wedge with my Celestron NexStar 6SE telescope. It is working much better now and I am learning even more about the on-board computer functions. It never ceases to amaze me at all the nuances to Astronomy and the equipment. I have also purchased a Focal Reducer for my telescope, but on the trial run I had problems focusing it. This led me to read the instructions and I have a couple of other things to try to make it work better. I took a couple of photos without the Focal Reducer (See below) and will try to use the Focal Reducer for the next ones. I'll keep you posted.



Messier 8 (Lagoon Nebula) - Courtesy Dell Vance

Be sure to share your experience with us as you have them. They can be forwarded to Dale Hooper and included in the newsletter. Also, include Tom Westre on the email and he can get them onto the web page.

With regards to the binocular support frames, I received a couple of responses from members. Ned has arranged for us to get together at his workplace to combine the best practices of all involved and to come up with a design that fits our needs. His employer is allowing us to use the shop and will provide materials at cost to build the support frames. We still need to know how many are interested in participating in this project. Please send an email to me at avteam.dell@gmail.com and to Ned Miller at nedmiller2008@gmail.com, if you are interested.

We will set up a date to meet and conduct the workshop.



Messier 17 (Swan or Omega Nebula) - Courtesy Dell Vance

Remember to send us an email if you are interested in running for any of the club offices. The elections will be at our September General Meeting and we would love to see a lot of participation. Also, let us know what things you are interested in for events in the future.



Messier 20 (Trifid Nebula) - Courtesy Dell Vance

Be sure to get out and look at the stars this month. The Milky Way is pretty bright in our valley.

Clear Skies!

Re-Entry of the Chinese Booster – Did You See It?

By Dale Hooper

On Wednesday, July 27th I was fortunate to be observing under the clear and dark skies of Monte Cristo campground. At 10:39pm I was getting ready to move my telescope to the Wild Duck Cluster (M11) when I noticed something that at first appeared to be a bolide meteor in the general area of Spica.

After just a few seconds I could tell that this was more than just a bolide meteor – it continued to span a larger area and hadn't faded. I saw at least two fragments that were bright green (signifying oxygen) as well as many red, orange and yellow colored fragments.

It continued to trek across the mid-tail of Scorpius and below Sagittarius and didn't fade away until it had passed several degrees beyond Sagittarius.

It was simply spectacular! This was apparently the second stage of a Chinese Long March 7 rocket estimated at 36 feet long and 11 feet in diameter. Please share your experiences if you saw it too. You may also be interested in checking out the article at *SpaceFlight Now*:

<https://spaceflightnow.com/2016/07/28/re-entering-chinese-rocket-stage-streaks-across-western-u-s/>

Total Eclipse 2017 – Are You Too Late?

By Dale Hooper

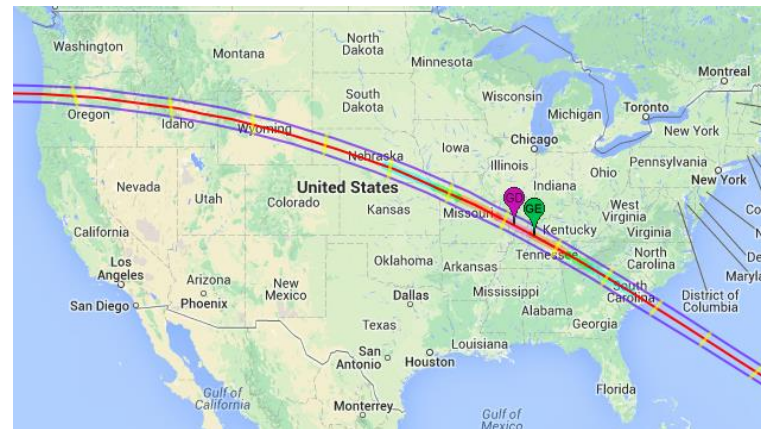
August 2017 may seem like a long ways away (like Christmas always did when you were little). However, you may already be pressing your luck if you haven't made arrangements for the August 21, 2017 total solar eclipse. Many hotels are already completely booked for the event.

However, if you are willing to spend some time on the phone or on the internet there may still be some hotel options. Some hotels will not book reservations for more than a year in advance. This means that if you do some searching, typing and

phoning as we approach August 21st **this year**, you may still be able to find some hotel accommodations.

If you can't find a hotel you may still be able to find some campsites near the path of totality. It may also be possible to drive to watch the eclipse (such as Idaho Falls, Idaho) the day of the eclipse. But, keep in mind that this is the first total solar eclipse in North America since 1991 so there may be many tens of thousands of people with the same idea. If you are driving the day of the eclipse be very generous with your travel estimates.

Also keep in mind that totality will be over before noon (MDT) anywhere west of Nebraska.



August 21, 2017 - Path of Totality, courtesy NASA

The sun will be more than 90% obscured in Logan but a metaphor that I like is: observing a partial solar eclipse is like looking at a nice menu but observing a total solar eclipse is like feasting on your very favorite meal.

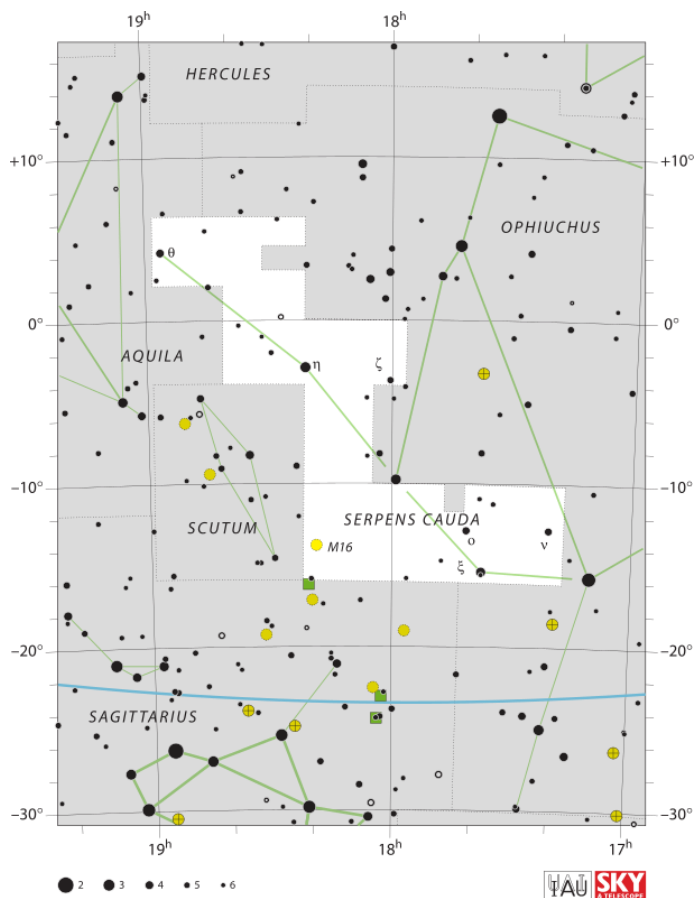
This is truly an event that every amateur astronomer should try to observe. I missed an opportunity to observe the 1991 total solar eclipse (Baja California) because I didn't think I could save up for the \$399 airfare and I have been kicking myself ever since. This is a chance of a lifetime – don't miss it.

(We will have additional articles about preparing for the eclipse as we count down to August 21, 2017.)

Spotlight on Serpens Cauda, the Snake's Tail

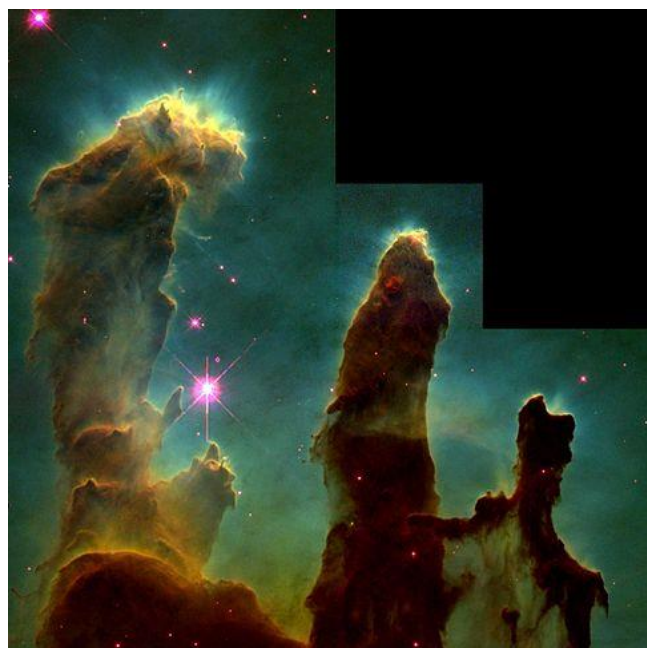
By Dale Hooper

This month we are going to spotlight the second “half” of the constellation which we started with last month. You may recall that Serpens is unique because it is split in two by Ophiuchus. We are spotlighting Serpens Cauda this month. Serpens Cauda is home to several nice double stars, a number of open clusters and M16 / the Eagle Nebula. M16 is actually cataloged as an open cluster and the associated emission nebula is cataloged as IC 4703.



IAU and Sky & Tel - Roger Sinnott & Rick Fienberg

The Eagle Nebula became especially famous in 1995 when Jeff Hester and Paul Scowen used the refurbished Hubble Space Telescope to produce the iconic “Pillars of Creation” image shown below.



Eagle Nebula - Pillars of Creation (courtesy NASA)

As shown in the star chart, Serpens Cauda is bordered by Ophiuchus, Hercules, Aquila, Scutum and Sagittarius.

The double stars listed rank four to five stars and the rest of the objects in the list rate three or more stars in *The Night Sky Observer's Guide* (Serpens Cauda is in Volume 2).



Eagle Nebula (60 sec. exposure) - Courtesy Dell Vance

As usual, the table is organized according to increasing Right Ascension values.

Object	R.A.	Dec.
Ruprecht 135 (Open cluster)	17h58.2m	-11°41'
NGC 6605 (Open cluster)	18h17.0m	-14°57'
NGC 6604 (Open cluster)	18h18.1m	-12°14'
IC 4703 (Eagle Nebula)	18h18.6m	-13°58'
Messier 16 (Open cluster)	18h18.8m	-13°47'
Alvan Clark 11 (Double star)	18h24.9m	-01°35'
Σ 2316 (Double star)	18h27.2m	+00°12'
IC 4756 (Open cluster)	18h39.0m	+05°27'
63 Serpentis (Double star)	18h56.2m	+04°12'

18 Aug	Full Moon Penumbral lunar eclipse
19 Aug	Neptune 1.1° south of Moon John Flamsteed born (1646)
24 Aug	Last quarter Moon Voyager 2 flies past Neptune (1989)
25 Aug	Aldebaran 0.2° south of Moon Voyager 2 flies past Saturn (1981) Spitzer Space Telescope launched (2003)
27 Aug	Venus 0.07° north of Jupiter
28 Aug	William Herschel discovers Saturn's moon Enceladus (1789)

CVAS Minutes – July 2016

There was no meeting in July.

Upcoming Star Parties

12 Aug	Public Star Party – Heritage Park
26 Aug	CVAS Star Party – Heritage Park
27 Aug	Solar Party – Logan Library (10am – 11:30am)
02 Sep	CVAS Star Party – Heritage Park
03 Sep	Solar Party – Logan Library (10am – 11:30am)
09 Sep	Public Star Party – Heritage Park
30 Sep	CVAS Star Party – Heritage Park

Upcoming Events

01 Aug	Maria Mitchell born (1818)
02 Aug	New Moon
04 Aug	Mercury 0.6° north of Moon
05 Aug	Jupiter 0.2° north of Moon
06 Aug	Curiosity rover lands on Mars (2012)
10 Aug	First Quarter Moon Magellan arrives at Venus (1990)
11 Aug	Asaph Hall discovers Mars' moon Deimos (1877) Perseid meteors
12 Aug	Perseid meteors
13 Aug	Perseid meteors
14 Aug	Perseid meteors
16 Aug	Mercury at greatest eastern elongation, 27°
17 Aug	Asaph Hall discovers Mars' moon Phobos (1877)