

# Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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[www.cvas-utah.org](http://www.cvas-utah.org)

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## No Meeting This Month

There will be no CVAS meeting this month. Instead, we will be having star parties. Please see the Upcoming Star Parties section of this newsletter or visit the website for the latest information about upcoming star parties.

## May 30<sup>th</sup> Star Party

There will be a star party May 30<sup>th</sup> at Dale Hooper's observatory in Hyde Park (weather permitting). Space in the observatory is somewhat limited. There is only room for about five or six people. So, please RSVP to [dchooper5@gmail.com](mailto:dchooper5@gmail.com) if you are interested in attending. More information will be emailed back to you.

## President's Corner

Hi everyone,

Dale and I have held our season's first Solar Party at the Logan Public Library Saturday May 3. We had many stop to view a large solar prominence on the limb of the sun. We think this is a great way to reach out to the community and let them know our club exists. We plan to have a number of

future solar parties and we welcome club members to come and join us. I have talked about our solar parties with Robert Shupe, the library director and he is supporting us. We also talked with a member of

the Cache Volunteer Center, and we are working out a plan to see if their organization and CVAS might work together. Having these star and solar parties gets us into contact with the Cache community and will help us promote our love of astronomy. The non-profit Charlie Bates Solar Astronomy Project (CBSAP) has announced an international day of the sun at June 22nd 2014. We will be planning a solar party for Saturday June 21, so please mark your calendar and plan to attend this event at the Logan Library.

Lately I have been having so much fun imaging messier objects, because they are bright, I have

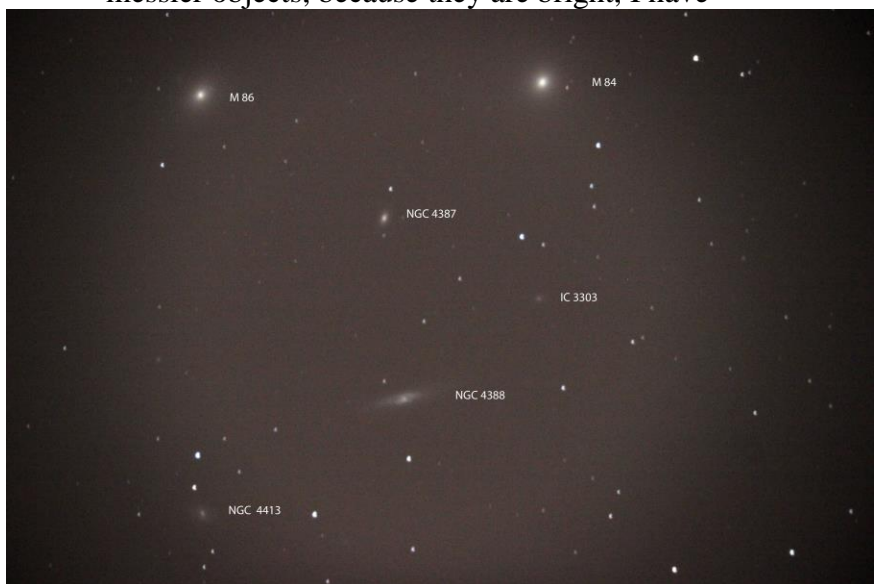


Figure 1 - Astrophoto from Tom Westre

decided to start imaging some of the better less observed galaxies from the New General Catalog,

which contains 7840 objects, known as NGC objects. Compiled in 1888 by John Louis Emil Dreyer it is one of the largest catalogs of deep sky objects, not just galaxies.

Since spring time is one of the best times of the year to view galaxies I thought I would try imaging some of the better NGC's in Virgo. My first attempt was on the evening of April 30, when I imaged eight Messier objects and fourteen NGC objects with my Canon T3i DSLR.

I found that I could get up to 20 second exposures with my C11, CGEM mount and Canon T3i DSLR. The skies were very good out here in Nibley. My goal was to find as many galaxies in one field of view as I could. On one exposure I was able to image M 86, M 84, NGC 4387, 4388, and 4313 including another galaxy from another catalog called the Index Catalog (IC), IC 3303. The NGC's were mostly magnitudes 11 and 12. Yet they imaged very nicely.

May is an exciting month. In the evening Jupiter is seen to the west, Mercury in the northwest Mars high in the south, and Saturn in the southeast. Saturn reaches opposition and peak visibility in May, with its rings open wider than at any time since 2005. Venus rises before the morning sun at a bright -4 magnitude.

Asteroids Ceres and Vesta can be seen in Virgo. Vesta at magnitude 6.5 and Ceres at 7. Try your DSLR on these two objects. See the May 2014 issue of Astronomy magazine for a detailed article on these asteroids.

On the Evening of May 23-24 we will pass through the debris of periodic comet 209P/LINEAR. The comet was discovered in 2004 and orbits out to Jupiter. Jupiter has a big influence on its orbit. This comet with a five year orbit should give us a nice meteor shower with a radiant near Polaris, actually in the lesser known constellation of Camelopardalis in RA 8h 16m and declination + 79 degrees. Estimates of from 100 to 400 per hour have been given, but it's really open to speculation. Start viewing on the evening of May 23 and into the early hours of May 24. A nearly new moon will help. The meteors should be bright and slow moving, about 40,000

mph. I am not expecting this to be a major event, but we never know. Drop us an email if you decide to get out and view the event and give us a description of what you saw or photographed. May 24 is on Saturday night, so if you would like to get together for a group all-nighter, this might prove to be enjoyable. The May 2014 issue of Sky and Telescope has a detailed article on this new meteor shower.

One more item, this comet will pass very close to Gamma Leonis on the evening of May 25-26. This includes a pair of 11<sup>th</sup> magnitude galaxies NGC 3226 and 3227. Another great photo opportunity. Don't forget some bright Messier galaxies are seen in Virgo and Coma Berencias. Get those scopes out and get a good look at them. Our next public star party will be June 6 at Hyrum Gibbon's Mt Logan Park, in Logan. We hope to have large turnout. We will be contacting all the local media to let them know of our event.

Our club is in need of a public relations director who would be willing to contact all the local media about our events. If you are interested in helping us with this important position contact me at 435-787-6380 for further details.

We have updated our webpage [cvas-utah.org](http://cvas-utah.org) for May so check there to see our coming events.



Figure 2 – April Total Lunar Eclipse, Dale Hooper

## CVAS Minutes – April 2014

The April meeting of the Cache Valley Astronomical Society was held on April 16, 2014 at 7:30pm in Room 244 of the SER Building.

President Tom Westre conducted the meeting. This is probably the last meeting until after summer. Tom and Dale reported that the solar party was very successful. May 2<sup>nd</sup> will be a star party at Mt. Logan Park and there will be another solar party May 3<sup>rd</sup>.

Byron Ray mentioned that it is important to get the star parties in the newspaper. Tom asked for a volunteer to serve as the club public relations person. Thus far there were no volunteers.

Our speaker was Tom Westre and he spoke about astrophotography. Tom was hooked on astronomy when he was able to use a six inch Clark refractor at the University of South Dakota. Some of Tom's early astrophotography experiences were taking a picture of a solar eclipse in 1966 and he was able to use a Canon F1SLR camera with a Celestron scope. He was also able to photograph the moon and Comet Bennett in 1970.

He mentioned that there are many types of cameras that can be used including a homemade pinhole camera or taking snapshots through the eyepiece using a smart phone.

Tom said that a DSLR is a really good camera for astrophotography. Many people use Canon's but Nikon's will also work well. He also said that the mount is the most important thing and is generally the most expensive piece of equipment used. He described fork mounts and equatorial mounts.

The next most important thing is the telescope itself. Refractors have no central obstruction, usually no need to collimate and are the most expensive for a large scope. Reflectors are less expensive per inch of aperture but have to be collimated. A Schmidt Cassegrain Telescope (SCT) has a shorter tube, slower focal ratio and a longer cool down time. Wide field apochromatic refractors (APO's) are very nice for wide field astrophotography but are rather pricey.

Tom gave some additional information about cameras. He mentioned that an autoguider can really help with longer exposures. DSLR cameras can provide at least ten megapixel images. It is important to shoot raw and JPEG images so that you can do additional processing. CCD cameras are internally cooled so they have lower noise and there is no need to have them modified to work with the red end of the spectrum.

The basic equipment is to get a t-ring and t-adaptor to use in the eyepiece holder at prime focus. Also, universal adapters can be obtained to use the camera with an eyepiece for additional magnification. Tom presented many great images that he has been able to obtain.

- Dale Hooper

## Upcoming Star Parties

May 30th	Star Party at Dale Hooper's observatory in Hyde Park
May 31 <sup>st</sup>	Solar Party – Logan Library
June 6 <sup>th</sup>	Mt Logan – Public Star Party

June 20<sup>th</sup> Star Party at Tom Westre's  
observatory  
June 27<sup>th</sup> Star Party at Beaver Mtn  
June 28<sup>th</sup> Solar Party  
July 25<sup>th</sup> Star Party at Beaver Mtn  
July 26<sup>th</sup> Solar Party  
Aug 1<sup>st</sup> Star Party at Mt Logan  
Aug 22<sup>nd</sup> Star Party at Beaver Mtn

### **Upcoming Events**

May 10 Saturn at Opposition  
May 23-24 Possible new meteor shower  
June 21 Summer Solstice